Service Manual

Tektronix

CG 5010 & CG 5011
Programmable Calibration Generators
Volume 2 with Options

070-7746-03

Warning
The servicing instructions are for use by qualified personnel only. To avoid personal injury, do not perform any servicing unless you are qualified to do so. Refer to the Safety Summary prior to performing service.

Please check for change information at the rear of this manual.

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Instrument Serial Numbers

Each instrument manufactured by Tektronix has a serial number on a panel insert or tag, or stamped on the chassis. The first letter in the serial number designates the country of manufacture. The last five digits of the serial number are assigned sequentially and are unique to each instrument. Those manufactured in the United States have six unique digits. The country of manufacture is identified as follows:

B010000	Tektronix, Inc., Beaverton, Oregon, USA
E200000	Tektronix United Kingdom, Ltd., London
J300000	Sony/Tektronix, Japan
H700000	Tektronix Holland, NV, Heerenveen, The Netherlands

Instruments manufactured for Tektronix by external vendors outside the United States are assigned a two digit alpha code to identify the country of manufacture (e.g., JP for Japan, HK for Hong Kong, IL for Israel, etc.).

Tektronix, Inc., P.O. Box 500, Beaverton, OR 97077

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In order to obtain service under this warranty, Customer must notify Tektronix of the defect before the expiration of the warranty period and make suitable arrangements for the performance of service. Customer shall be responsible for packaging and shipping the defective product to the service center designated by Tektronix, with shipping charges prepaid. Tektronix shall pay for the return of the product to Customer if the shipment is to a location within the country in which the Tektronix service center is located. Customer shall be responsible for paying all shipping charges, duties, taxes, and any other charges for products returned to any other locations.

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OPERATORS SAFETY SUMMARY

The general safety information in this part of the summary is for both operating and servicing personnel. Specific warnings and cautions will be found throughout the manual where they apply, but may not appear in this summary.

TERMS

In This Manual

CAUTION statements identify conditions or practices that could result in damage to the equipment or other property.

WARNING statements identify conditions or practices that could result in personal injury or loss of life.

As Marked on Equipment

CAUTION indicates a personal injury hazard not immediately accessible as one reads the markings, or a hazard to property, including the equipment itself.

DANGER indicates a personal injury hazard immediately accessible as one reads the marking.

SYMBOLS

In This Manual



This symbol indicates where applicable cautionary or other information is to be found.

As Marked on Equipment



DANGER – High voltage.



Protective ground (earth) terminal.



ATTENTION – Refer to manual.

Power Source

This product is intended to operate in a power module connected to a power source that will not apply more than 250 volts rms between the supply conductors or between either supply conductor and ground. A protective ground connection, by way of the grounding conductor in the power module power cord, is essential for safe operation.

Grounding the Product

This product is grounded through the grounding conductor of the power module power cord. To avoid electrical shock, plug the power cord into a properly wired receptacle before connecting to the product input or output terminals. A protective ground connection, by way of the grounding conductor in the power module power cord, is essential for safe operation.

Danger Arising From Loss of Ground

Upon loss of the protective-ground connection, all accessible conductive parts (including knobs and controls that may appear to be insulating) can render an electric shock.

Use the Proper Fuse

To avoid fire hazard, use only a fuse of the correct type, voltage rating and current rating as specified in the parts list for your product.

Refer fuse replacement to qualified service personnel.

Do Not Operate in an Explosive Atmospheres

To avoid explosion, do not operate this instrument in an explosive atmosphere unless it has been specifically certified for such operation.

Do Not Operate Without Covers

To avoid personal injury, do not operate this product without covers or panels installed. Do not apply power to the plug-in via a plug-in extender.

SERVICE SAFETY SUMMARY

FOR QUALIFIED SERVICE PERSONNEL ONLY

Refer also to the preceding Operators Safety Summary

Do Not Service Alone

Do not perform internal service or adjustment of this product unless another person capable of rendering first aid and resuscitation is present.

Use Care When Servicing With Power On

Dangerous voltages exist at several points in this product. To avoid personal injury, do not touch exposed connections or components while power is on.

Disconnect power before removing protective panels, soldering, or replacing components.

Power Source

This product is intended to operate in a power module connected to a power source that will not apply more than 250 volts rms between the supply conductors or between either supply conductor and ground. A protective ground connection, by way of the grounding conductor in power module power cord, is essential for safe operation.

MAINTENANCE

This section of the manual contains information for performing preventive maintenance, instrument disassembly, circuit board maintenance, troubleshooting, and corrective maintenance for the CG 5010/CG 5011. In addition, specific diagnostic procedures using the signature analysis method of troubleshooting is found in the latter part of this section.

PREVENTIVE MAINTENANCE

INTRODUCTION

Preventive maintenance, when performed on a regular basis, can prevent instrument breakdown and may improve instrument reliability. The severity of the environment to which the instrument is subjected will determine the frequency of maintenance. A convenient time to perform preventive maintenance is preceding electrical adjustment of the instrument.

STATIC-SENSITIVE COMPONENTS

Precautions

CAUTION

Static discharge can damage any semiconductor component in this instrument.

This instrument contains electrical components that are susceptible to damage from static discharge. See Table 6-1 for relative susceptibility of various classes of semiconductors. Static voltages of 1 kV to 30 kV are common in unprotected environments.

Observe the following precautions to avoid damage:

1. Minimize handling of static-sensitive components.

2. Transport and store static-sensitive components or assemblies in their original containers, on a metal rail, or on conductive foam. Label any package that contains static-sensitive assemblies or components.

Table 6-1
Relative Susceptibility to Static-Discharge Damage

Semiconductor Classes	Relative Susceptibility Levels[a]
MOS or CMOS microcircuits or discretes, or linear microcircuits with MOS inputs (Most Sensitive)	1
ECL	2
Schottky signal diodes	3
Schottky TTL	4
High-frequency bipolar transistors	5
JFET	6
Linear microcircuits	7
Low-power Schottky TTL	8
TTL (Least Sensitive)	9

[a] **Voltage equivalent for levels (voltage discharged from a 100-pf capacitor through resistance of 100 Ω):**

1 = 100 to 500 V
2 = 200 to 500 V
3 = 250 V
4 = 500 V
5 = 400 to 600 V
6 = 600 to 800 V
7 = 400 to 1000 V (est)
8 = 900 V
9 = 1200 V

3. Discharge the static voltage from your body by wearing a wrist strap while handling these components. Servicing static-sensitive assemblies or components should be performed only at a static-free work station by qualified service personnel.

4. Nothing capable of generating or holding a static charge should be allowed on the work station surface.

5. Keep the component leads shorted together whenever possible.

6. Pick up components by the body, never by the leads.

7. Do not slide the components over any surface.

8. Avoid handling components in areas that have a floor or work surface covering capable of generating a static charge.

9. Use a soldering iron that is connected to earth ground.

10. Use only special antistatic suction type or wick type desoldering tools.

Test Equipment

Before using any test equipment to make measurements on static-sensitive components or assemblies, be certain that any voltage or current supplied by the test equipment does not exceed the limits of the component to be tested.

CLEANING

Introduction

The CG 5010/CG 5011 should be cleaned as often as operating conditions require. Accumulation of dirt in the instrument can cause overheating and component breakdown. Dirt on components acts as an insulating blanket and prevents efficient heat dissipation. It also provides an electrical conduction path which may result in instrument failure. The side panels reduce the amount of dust reaching the interior of the instrument. Operation without the panels in place necessitates more frequent cleaning.

CAUTION

Use a nonresidue type of cleaner, preferably isopropyl alcohol, or totally denatured ethyl alcohol. Do not use alcohol or petroleum based cleansing agents on the front panel. Do not use air or any solvent to clean the Front Panel circuit board. Before using any other type of cleaner, consult your Tektronix Service Center or representative.

Exterior

Loose dust accumulated on the outside of the instrument can be removed with a soft cloth or small brush. The brush is particularly useful for dislodging dirt on and around the front panel and front-panel controls. Dirt which remains can be removed with a soft cloth dampened in a mild detergent and water solution. Do not use abrasive cleaners.

Interior

Cleaning the interior of the instrument should only be necessary occasionally. The best way to clean the interior is to blow off the accumulated dust with dry, low-velocity air (approximately 5 lb/in²). Remove any dirt which remains with a soft brush or a cloth dampened with a mild detergent and water solution. A cotton-tipped applicator is useful for cleaning in narrow spaces, or for cleaning more delicate circuit components.

To properly hand clean a circuit board with edge connectors, hold the board so the cleaning residue runs away from the connectors. Do not scrape or use an eraser to clean the edge connector contacts. Abrasive cleaning can remove the gold plating resulting in possible destruction of electrical continuity.

CAUTION

Circuit boards and components must be dry before applying power to prevent damage from electrical arcing.

VISUAL INSPECTION

The CG 5010/CG 5011 should be inspected occasionally for such defects as broken connections, improperly seated semiconductors, damaged or improperly installed circuit boards, and heat-damaged parts. The corrective procedure for most visible defects is obvious; however, particular care must be taken if heat damaged parts are found. Overheating usually indicates other trouble in the instrument; therefore, correcting the cause of overheating is important to prevent recurrence of the damage.

SEMICONDUCTOR CHECKS

Periodic checks of semiconductors are not recommended. The best check of semiconductor performance

is actual operation in the instrument. More details on semiconductors are given under Troubleshooting later in this section.

GENERAL TROUBLESHOOTING

The following general information is provided to facilitate troubleshooting of the CG 5010/CG 5011. Information contained in other sections of this manual should be used in conjunction with the following data to aid in locating a defective component. An understanding of the circuit operation is helpful in locating troubles; refer to the Theory of Operation section in Vol. 1 for this information.

WARNING

The Lithium battery used in this instrument should last about three years. This is a safety controlled part, and should be replaced with the same part number.

Do not dispose of the battery in a fire or open flame as the battery may explode.

TROUBLESHOOTING AIDS

Diagrams

Complete schematic diagrams are given on the pullout pages located in the rear of this manual. The component number and electrical value of each component in this instrument are shown on these diagrams. (See the first page of the Diagrams and Circuit Board Illustrations section for definitions of the reference designators and symbols used to identify components in this instrument.)

Circuit Board Illustrations

To aid in locating components, a circuit board illustration(s) appears on the back of the pullout page facing the associated schematic diagram. Each circuit board illustration is arranged in a grid locator with a component reference chart to facilitate rapid location of components contained in the schematic diagrams and on the circuit board.

Troubleshooting Charts

Troubleshooting charts and diagnostic procedures for the Central Processing circuits are located in the latter part of this section.

Troubleshooting charts for the Amplitude and Timing circuits are located in the foldout pages. The troubleshooting charts locate the malfunctions to a circuit block level. The circuits listed are discussed in detail in the Theory of Operation section.

Component Color Coding

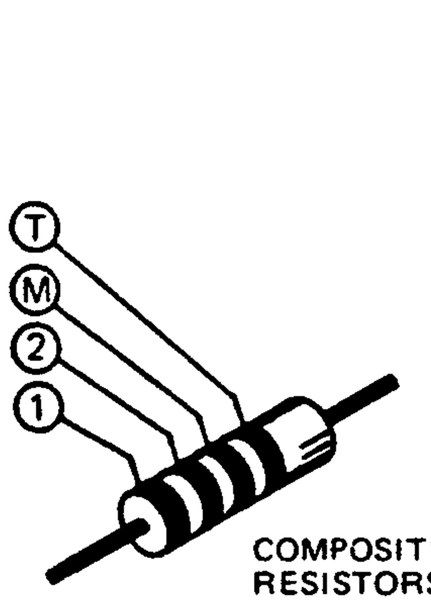
The instrument contains brown composition resistors, some metal film resistors, and some wire-wound resistors. The resistance values of wire-wound resistors are usually printed on the component body. The resistance values of composition resistors and metal film resistors are color coded on the components using the EIA color code (some metal film resistors may have the value printed on the body). The color code is read starting with the stripe nearest the end of the resistor. Composition resistors have four stripes, which consist of two significant figures, a multiplier and a tolerance value. Metal film resistors have five stripes consisting of three significant figures, a multiplier and a tolerance value.

The values of common disc capacitors and small electrolytics are marked on the side of the component body. The epoxy coated tantalum capacitors used in the instrument are color coded using a modified EIA code (see Fig. 6-1).

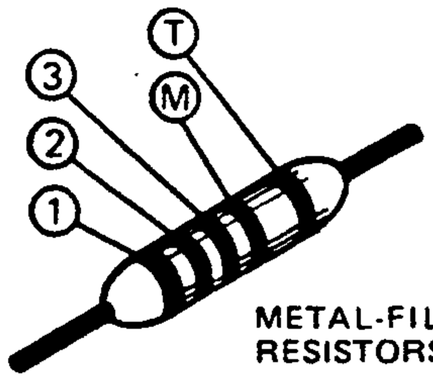
The cathode end of glass encased diodes is indicated by a stripe, a series of stripes, or a dot. The cathode and anode ends of metal encased diodes can be identified by the diode symbol marked on the body.

Semiconductor Lead Configurations

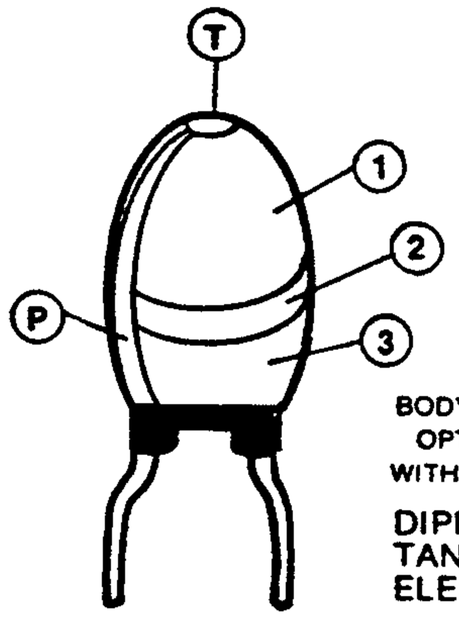
Lead configurations for semiconductor devices and some integrated circuits used in the CG 5010/CG 5011 are shown in Fig. 6-2.



COMPOSITION RESISTORS



METAL-FILM RESISTORS



BODY COLOR OPTIONAL WITH VENDOR

DIPPED TANTALUM ELECTROLYTICS

① ② and ③ - 1ST, 2ND, AND 3RD SIGNIFICANT FIGS.
Ⓜ - MULTIPLIER Ⓣ - TOLERANCE;
Ⓣ AND/OR Ⓒ COLOR CODE MAY NOT BE PRESENT ON SOME CAPACITORS;
Ⓒ - TEMPERATURE COEFFICIENT.
Ⓟ - POLARITY AND VOLTAGE RATING

COLOR	SIGNIFICANT FIGURES	RESISTORS		CAPACITORS		
		MULTIPLIER (OHMS)	TOLERANCE	MULTIPLIER (pF)	TOLERANCE	VOLTAGE RATING
BLACK	0	1	---			4VDC
BROWN	1	10	±1%			6VDC
RED	2	10^2 or 100	±2%			10VDC
ORANGE	3	10^3or 1 K	±3%			15VDC
YELLOW	4	10^4 or 10K	±4%	10^4 or 10,000		20VDC
GREEN	5	10^5 or 100 K	±1/2%	10^5or 100,000		25VDC
BLUE	6	10^6 or 1 M	±1/4%	10^6 or 1,000,000		35VDC
VIOLET	7	---	±1/10%	10^7 or 10,000,000		50VDC
GRAY	8	---	---			---
WHITE	9	---	---			
GOLD	---	10^{-1} or 0.1	±5%	---	±5%	---
SILVER	---	10^{-2} or 0.01	±10%	---	±10%	---
NONE	---	---	±20%	---	-20%	---

2815-05 (C1862-74)

Fig. 6-1. Color code for resistors and capacitors.

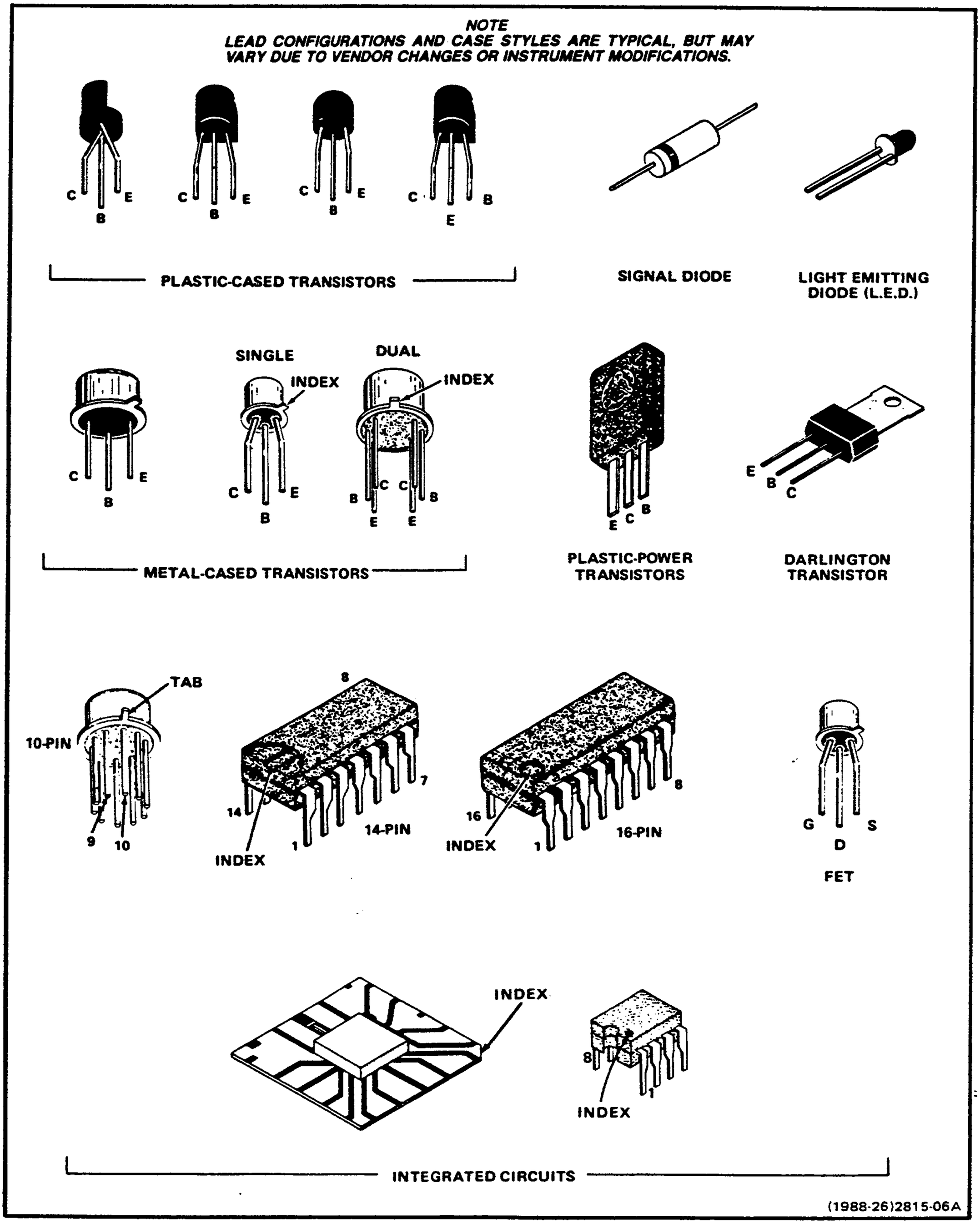


Fig. 6-2. Semiconductor lead configurations.

Multipin Connectors

Pin 1 on multipin connectors is designated with a triangle. A triangle, dot, or square printed on circuit boards denotes pin 1. When a connection is made to a circuit board, the orientation of the triangle on the multipin holder is determined by the index (triangle, dot or square) printed on the circuit board (see Fig. 6–3). Some multipin connectors are keyed with a plastic pin that protrudes through a hole on the circuit board. Proper mating with the multipin connector and the pin(s) on the circuit board cannot be accomplished unless this pin is aligned with the hole on the circuit board.

Some multipin connectors are equipped with a locking mechanism to more readily secure the connector to the circuit board. To remove these connectors, grasp the connector body and pull perpendicular to the circuit board. They should not be removed by pulling on the wire leads; this causes the locking mechanism to clamp onto the circuit board pins.

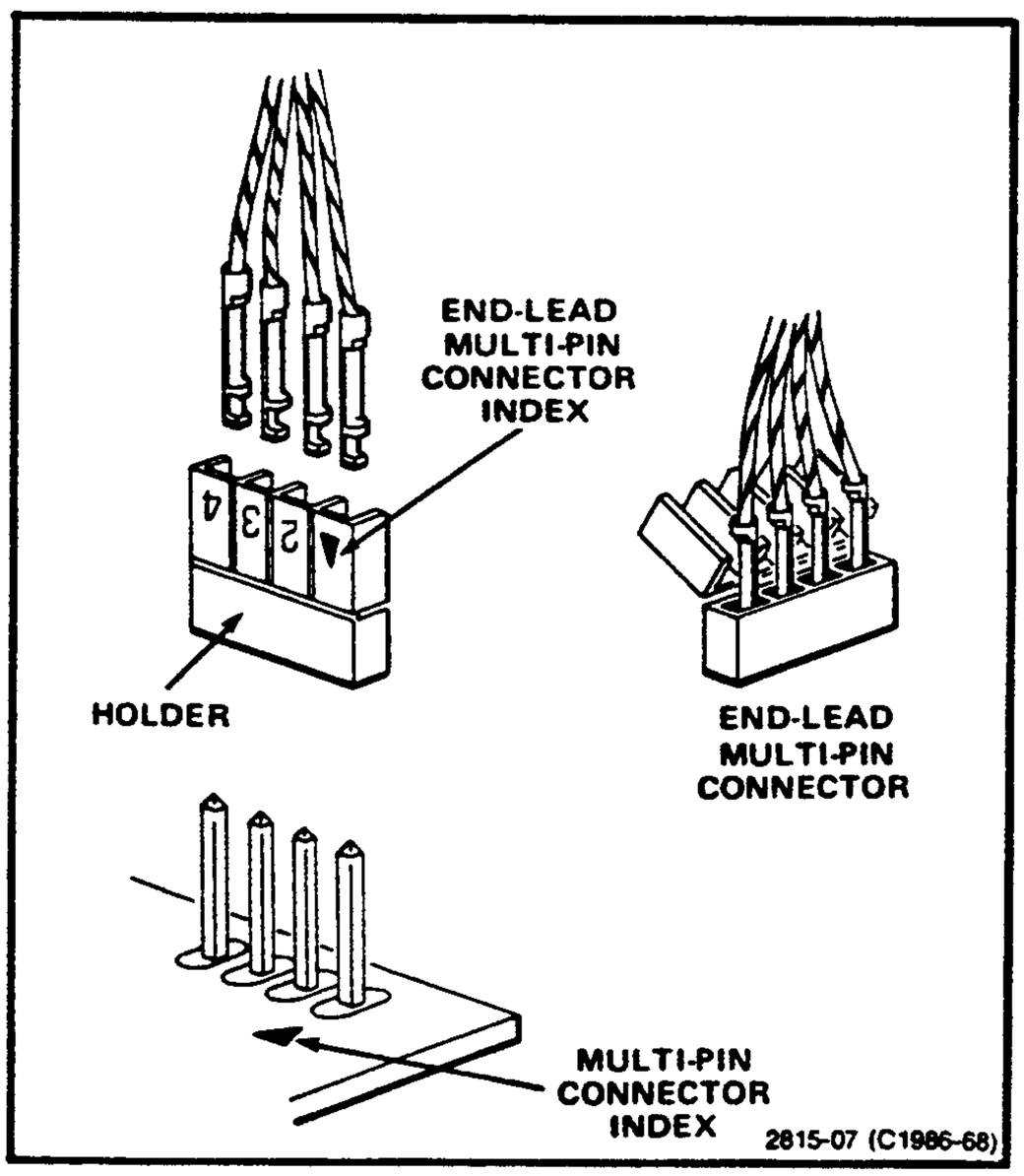


Fig. 6–3. Orientation of multi-pin connectors.

TROUBLESHOOTING EQUIPMENT

See the equipment in the Calibration section of this manual for equipment suggestions for maintaining the CG 5010/CG 5011.

Extender Cables and Board Extenders

Several extenders are available to improve accessibility to the CG 5010/CG 5011 for servicing. The entire instrument can be operated outside of the power module using three Flexible Extender Cables (Tektronix Part Number 067–0645–02).

Individual boards may be extended at right angles outside the top of the instrument using a Rigid Circuit Board Extender (Tektronix Part Number 067–0975 00). To use this extender remove the desired board, replace the board with the extender, with the word Top at the top of the instrument, and plug the board into the socket on the rigid extender. Make certain the board is correctly plugged into the rigid extender (top of board toward front of instrument). If the board chosen has connectors on both ends, use the Flexible Extender Cable (Tektronix Part Number 067–0645–02) to connect the board to the power module.

For further flexibility, another Flexible Circuit Board Extender (Tektronix Part Number 067–0974–00) can be plugged into the Main Interconnect board or the rigid extender and the chosen board plugged into the flexible extender. In either case, if the board has a power module connector, it must be connected to the power module as previously described. Make certain all connectors are properly oriented.

GENERAL TROUBLESHOOTING TECHNIQUES

This troubleshooting procedure is arranged to check the simple trouble possibilities before proceeding with extensive troubleshooting. The first few checks ensure proper connection, operation, and adjustment. If the trouble is not located by these checks, the remaining steps aid in locating the defective component. When the defective component is located, replace it following the procedures given under Corrective Maintenance.

1. Check Control Settings

Incorrect control settings can appear to be an equipment problem. If there is any question about the correct function or operation of any control on the CG 5010/CG 5011, refer to the Operating Instructions (Vol. 1).

2. Check Associated Equipment

Before proceeding with troubleshooting, check that the equipment used with this instrument is operating

correctly. Also, check that the interconnecting cables are not defective.

3. Visual Check

Visually check that portion of the instrument in which the trouble is located. Many troubles can be found by visible indications such as unsoldered connections, loose cable connections, broken wires, damaged circuit boards, and damaged components.

4. Check Instrument Adjustment

Check the electrical adjustment of this instrument, or of the affected circuit if the trouble appears in one circuit. The apparent trouble may only be a result of misadjustment. Complete adjustment instructions are given in the Calibration section.

5. Isolate Trouble to a Circuit

To isolate trouble to a particular circuit, note the trouble symptom. The symptom often identifies the circuit in which the trouble is located. When trouble symptoms appear in more than one circuit, check the affected circuits by taking voltage and waveform measurements. Also check for the correct output signals at the front and rear-panel input/out-put connectors with a test oscilloscope. If the signal is correct, the circuit is working correctly up to that point.

The CG 5010/CG 5011 Troubleshooting Charts in the Diagrams and Illustrations (foldout) section provides a guide for locating defective circuits to the circuit block level. Start at the top of the chart and perform the checks until a step is found that does not produce the indicated results.

After the defective circuit has been located, proceed with step 6 to locate the defective component(s).

6. Check Individual Components

The following procedures describe methods of checking individual components in the CG 5010/ CG 5011. Components which are soldered in place are best checked by first disconnecting one end. This isolates the measurements from the effects of surrounding circuitry.

FUSES. Check for open fuses by checking continuity with an ohmmeter.

TRANSISTORS. A good check of transistor operation is actual performance under operating conditions. A transistor can most effectively be checked by substituting a new component for it (or one which has been previously checked). However, be sure that circuit conditions are not such that a replacement transistor might also be damaged. If substitute transistors are not available, use a dynamic tester. Static-type testers are not recommended since they do not check operation under simulated operating conditions.

INTEGRATED CIRCUITS. Integrated circuits can be checked with a voltmeter, test oscilloscope, or by direct substitution. A good understanding of the circuit operation is essential to troubleshooting circuits using integrated circuits. In addition, operating waveforms, logic levels, and other operating information for the integrated circuits are given in the Theory of Operation section and troubleshooting charts. Use care when checking voltages and waveforms around the integrated circuits so that adjacent leads are not shorted together. A convenient means of clipping a test probe to the in-line, multi-pin integrated circuits is with an integrated circuit test clip. This device also doubles as an integrated circuit extraction tool.

DIODES. A diode can be checked for an open or shorted condition by measuring the resistance between terminals with an ohmmeter on a scale having a low internal source current, such as the R X 1k scale. The resistance should be very high in one direction and very low when the meter leads are reversed.

CAUTION

When checking diodes, do not use an ohmmeter scale that has a high internal current since high currents may damage the diodes under test.

RESISTORS. Check the resistors with an ohmmeter. Resistor tolerances are given in the Replaceable Electrical Parts list. Normally, resistors do not need to be replaced unless the measured value varies widely from the specified value.

CAPACITORS. A leaky or shorted capacitor can best be detected by checking resistance with an ohmmeter on the highest scale. Do not exceed the voltage rating of the capacitor. The resistance reading should be high after initial charge of the capacitor. An open capacitor can best be detected with a capacitance meter or by checking to see if the capacitor passes ac signals.

7. Repair and Adjust the Circuit

If any defective parts are located, follow the replacement procedures given under Component Replacement in this section. Check the performance of any circuit that has been repaired or that has had any electrical components replaced. Adjustment of that circuit may be necessary.

INSTRUMENT DISASSEMBLY AND BOARD MAINTENANCE

Circuit Board Removal

See Fig. 6–4 for an exploded view of CG 5010/CG 5011 circuit board locations.

Before removing the circuit boards, other than the Front Panel and Main Interconnect boards, remove the screw shown in Fig. 6–5.

To remove top and bottom covers, see Fig.6–6 and Fig.6–7.

CAUTION

When replacing a circuit board, or connecting a board to an extender cable, be certain that the boards are in their proper slot and aligned with the proper power module interface connection.

Front Panel Removal

To remove the front panel and gain access to the Main Interconnect board, remove the fifteen screws attaching the front panel. These screws are shown in Figs. 6–6 and 6–7. Separate the front panel from the chassis and remove the ribbon cable connector attached to the Main Interconnect board. Also, note the routing of the coaxial cables through the Main Interconnect board to the Output and Time Mark boards.

Display LED Removal

To gain access to the LEDs, remove the transparent, red front cover by depressing the three tabs that attach the cover to the top of the front panel. The LEDs may then be unsoldered from the Front Panel circuit board and removed without removing the Front Panel circuit board.

Front Panel Circuit Board (A1)

To remove the Front Panel circuit board, disconnect the wires attaching the REMOTE VARIABLE connector to the Front Panel circuit board. Also remove the wires connected to the OUTPUT, TRIGGER OUTPUT, and the CURRENT LOOP. Remove the two knobs attached to the UNITS/DIV control and remove the five screws attaching the circuit board to the front panel. To remove the pushbutton switches, push them out of the circuit board from the rear.

The UNITS/DIV switch, if defective, must be replaced as a unit. To remove this switch, unsolder the four wires attached to the switch and remove the three screws.

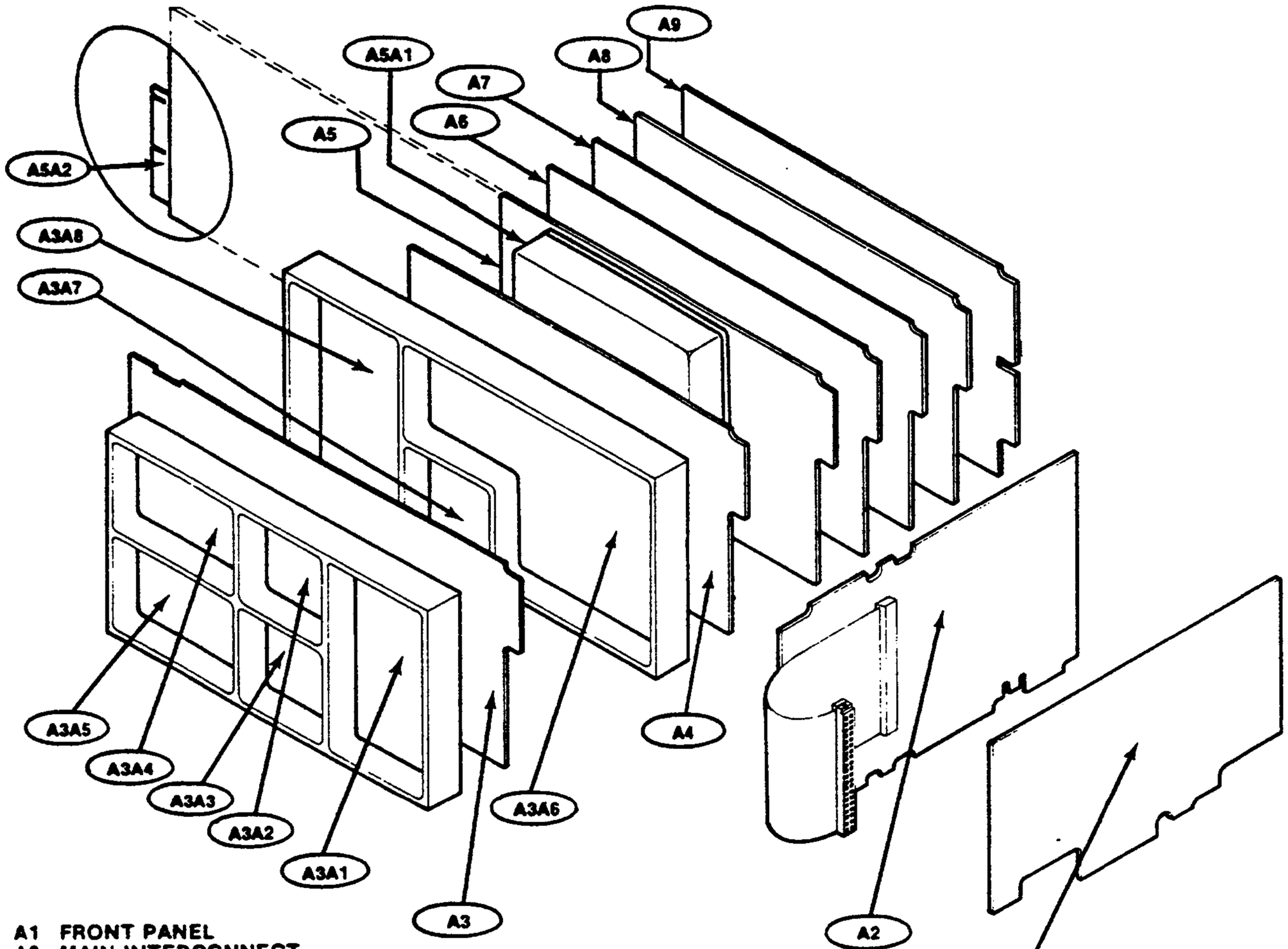
Do not clean the Front Panel circuit board with water, air, or any solvent unless the pushbutton switches are removed first. Any dirt forced or carried under the switch contacts can cause intermittent operation.

Main Interconnect Board (A2)

This board is removed from the instrument after the front panel is removed. The Main Interconnect board is attached by two screws in angle brackets attached to the bottom of the instrument. See Fig. 6–7. Also, remove the four screws attaching the shields to this board. No special maintenance procedures are required when servicing this board.

Time Interface Board (A3/A3A1—A3A8) (CG 5010 only)

To remove the A3 board, see Fig. 6–8. To gain access to the small circuit boards mounted in the shields attached to the Time Interface board, remove the two aluminum covers attached to the shields. The rubber pads attached to the cover improve heat transfer characteristics from components mounted on the circuit boards. These pads are attached to the shields with self-sticking adhesive. The inside of the aluminum covers are silk screened to show the pad outlines. Make certain, when replacing the covers, that they are replaced with the pads next to the components and that all screws are installed.



A1 FRONT PANEL
A2 MAIN INTERCONNECT
A3 TIME INTERFACE
A3A1 OFFSET PLL
A3A2 SLEWING CONTROL
A3A3 OFFSET VCO
A3A4 COUNTER (TRIGGER)
A3A5 COUNTER (SLEWING)
A3A6 STEERING
A3A7 MAIN VCO
A3A8 MAIN PLL
A4 TIME MARK
A5 PS MAIN
A5A1 PS ISOLATOR
A5A2 PS INTERFACE
A6 REFERENCE
A7 OUTPUT
A8 HIGH EDGE
A8A1 GPIB CONNECTOR (INSTALLED IN CG 5001 ONLY)
A9 CPU

(2815-08)4767-01

LOOK AT MECHANICAL FIG. 2 FOR A8A1 DETAILS

Fig. 6-4. CG 5010/CG 5011 circuit board locations.

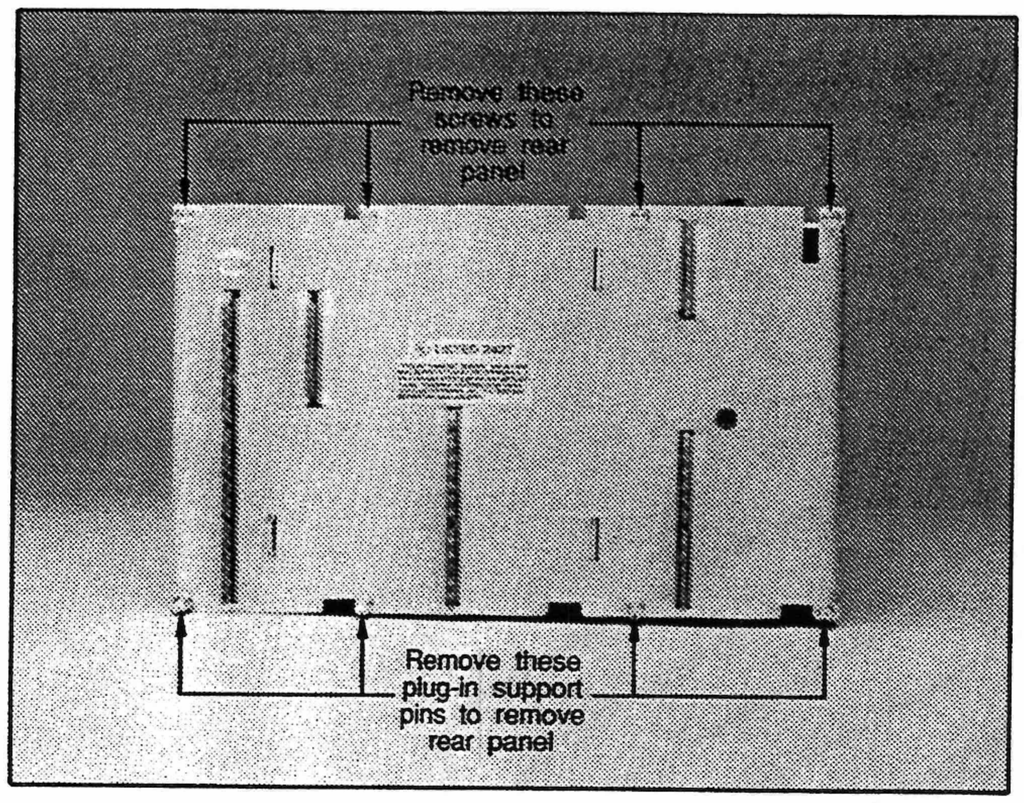


Fig. 6-5. Rear panel holding screws and plug-in support pins.

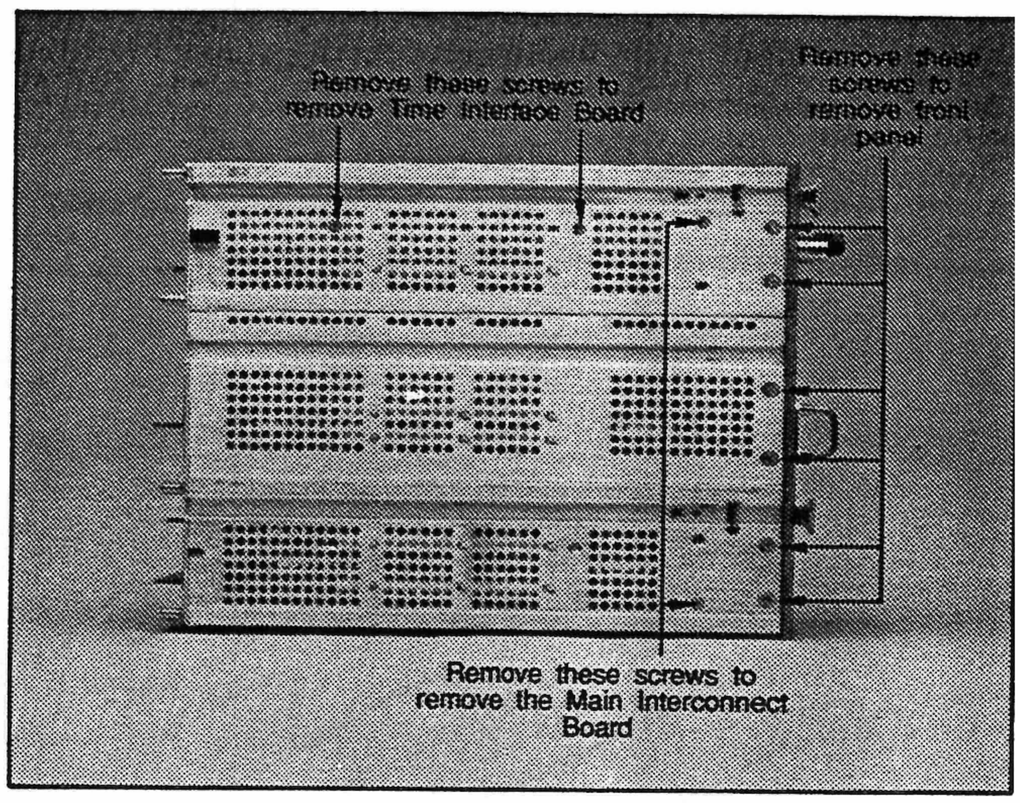


Fig. 6-7. Bottom view of CG 5010/CG 5011.

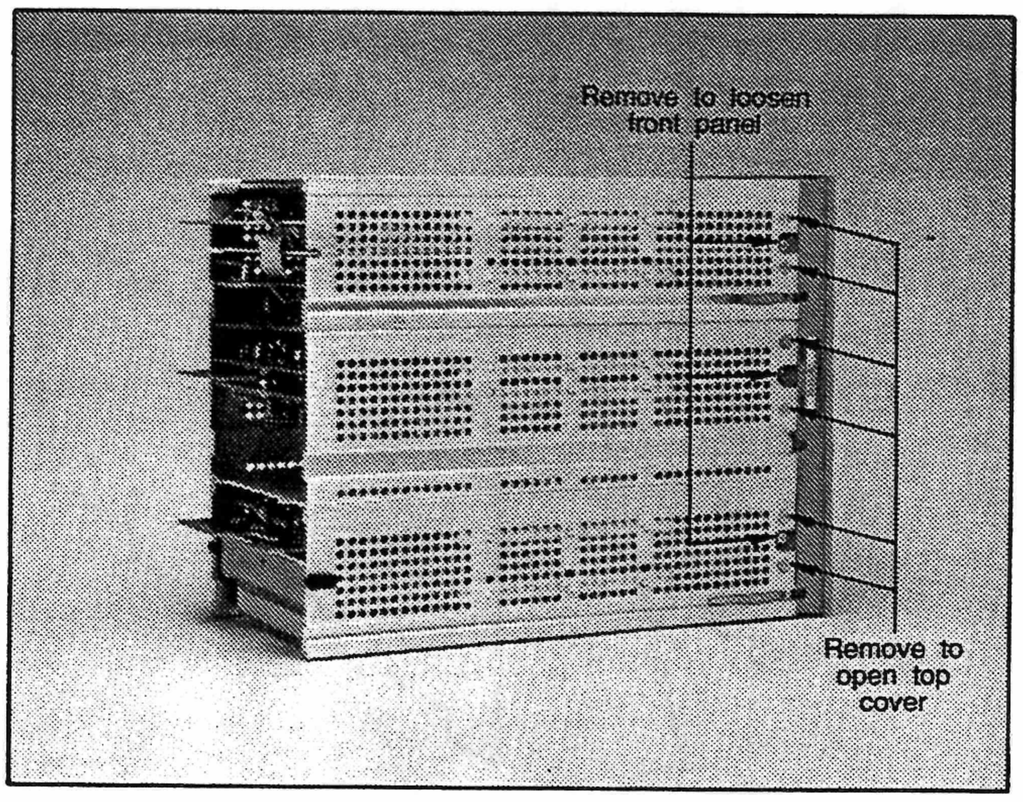


Fig. 6-6. Top view of CG 5010/5011.

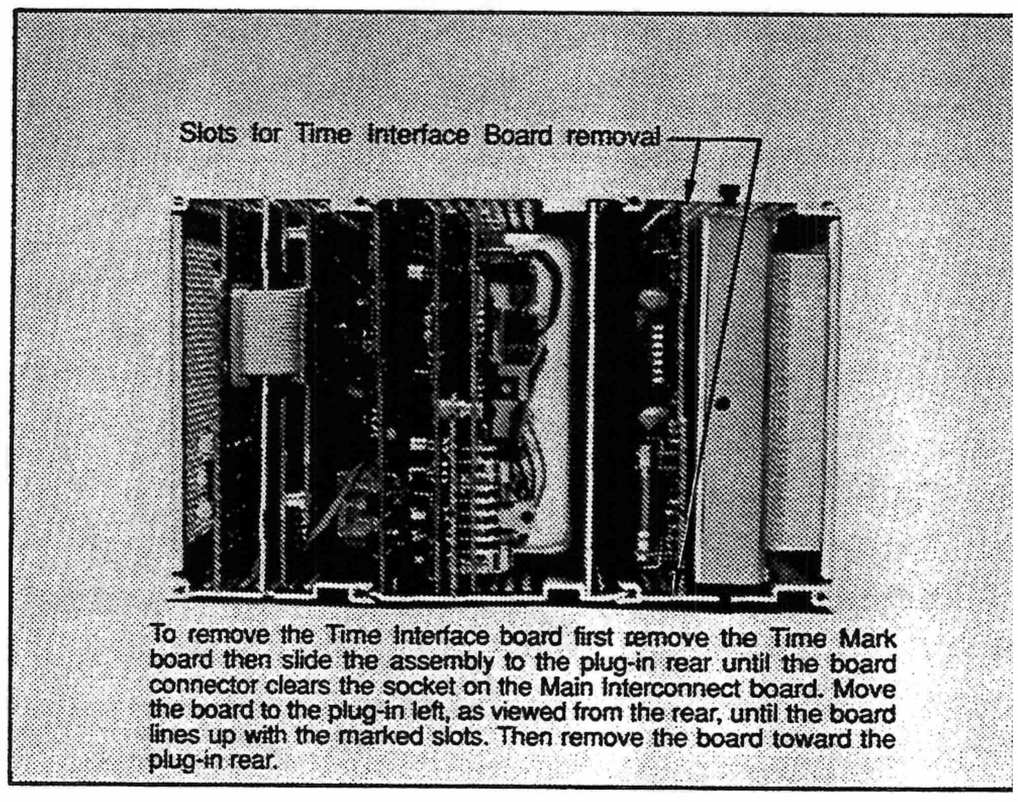


Fig. 6-8. Rear view of CG 5010/CG 5011.

To remove the small circuit boards (A3A1–A3A8) from the shields and to remove the shields from the Time Interface board, refer to the instructions in Fig. 6–9.

Advance Timing Board (CG 5011 only)

To remove the A3A9 board, remove the six screws holding the shield. Remove the shield and the board stand–off nuts, then remove the circuit board.

Time Mark Board (A4)

No special board maintenance procedures are required for this board. Make certain the two fuses are replaced with the correct values.

Power Supply Boards (A5/A5A1)

To remove the Power Supply Isolator board from the Power Supply Main board, remove the four screws attaching the Isolator to the main board.

To remove the Isolator board from the shield, unsolder the wires from the board to the shield feed–throughs at the feed–through connections. Then remove the four hex posts and remove the board.

Power Supply Interface Board (A5A2)

No special maintenance procedures are required for servicing this board.

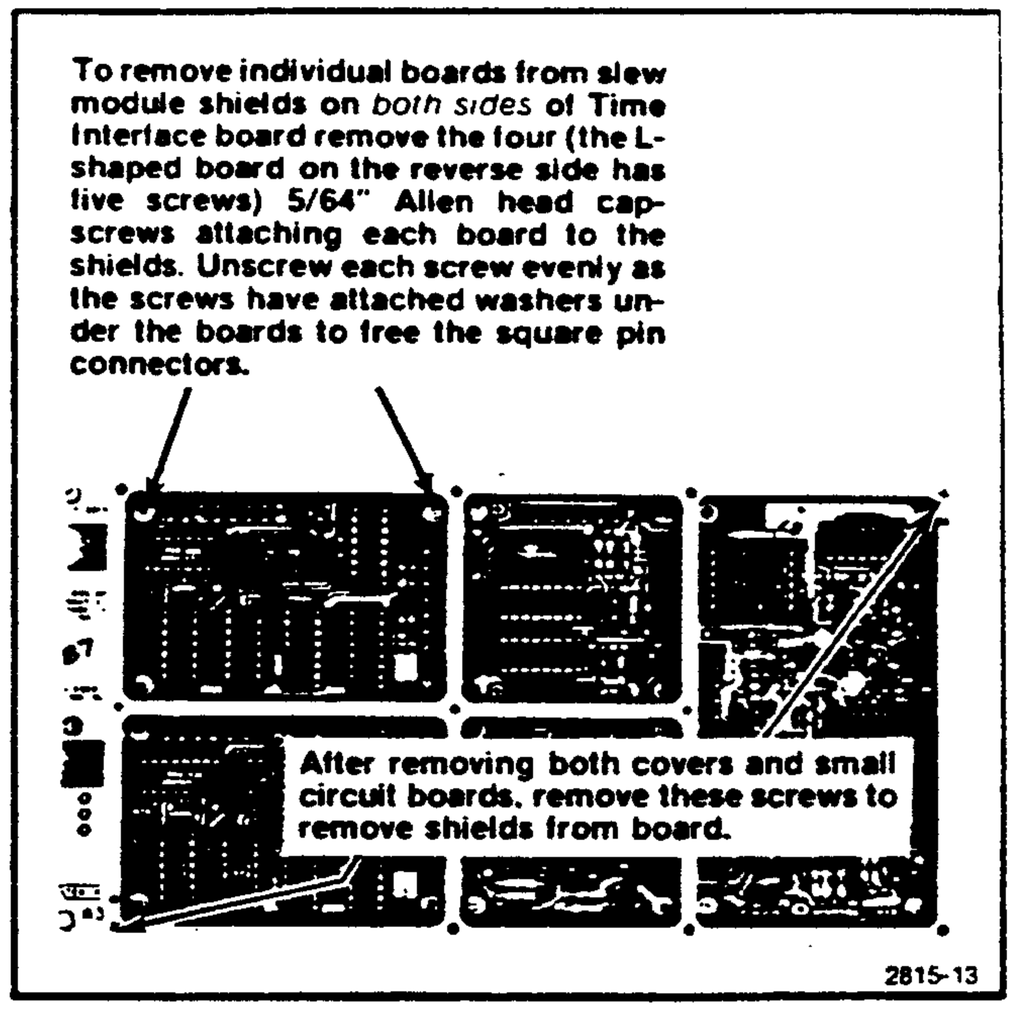


Fig. 6–9. Outside of Time Interface board. Although only one side is shown, small board removal instructions are identical for both sides.

Reference Board (A6)

No special maintenance procedures are required on this board.

Output Board (A7)

To remove the attenuator chips press down on both ends of the clips holding the ceramic attenuators to the circuit board. Slide the clips in the proper direction and remove. Refer to Fig. 6–10.

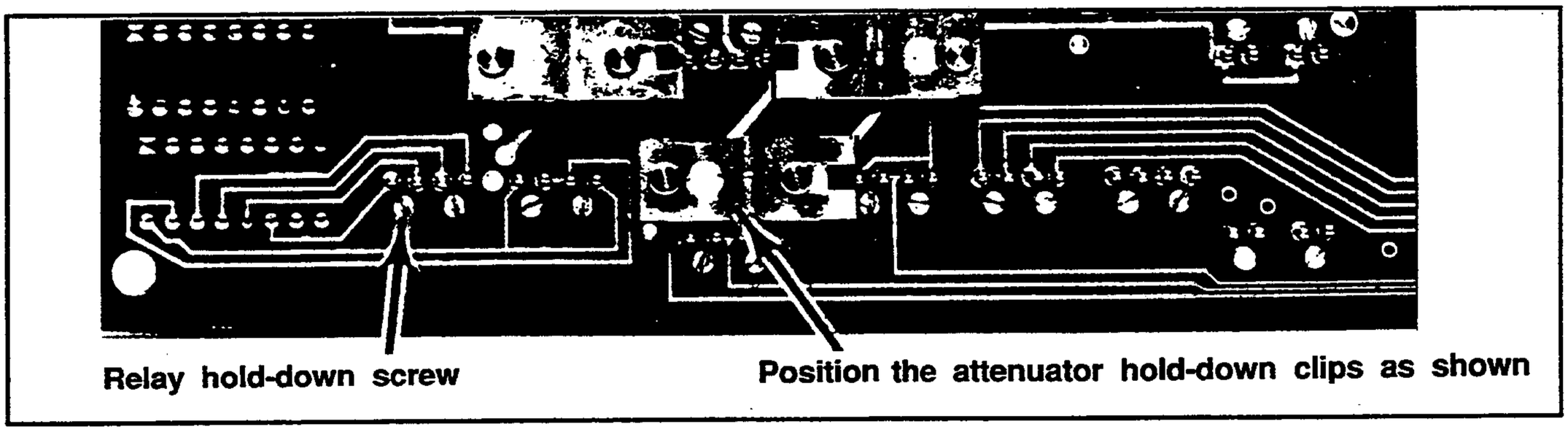


Fig. 6–10. Output board.

Make certain the ceramic chips are replaced so that the contact points contact the runs on the circuit board. Also, make certain the clips are replaced facing the proper direction.

When replacing the Output board in the instrument, connect the coaxial cable from the CURRENT LOOP to the front-most connector. Connect the coaxial cable from the OUTPUT connector to the socket toward the rear of the board.

MAGNETIC LATCHING RELAYS. To prevent damage to these relays, do not remove them from the Output circuit board unless absolutely necessary. If the relay contacts become noisy or the relay fails to operate, remove the relay from the circuit board. Remove the two screws (using a TORX #T-5 bit), attaching each relay, from the back of the board.

Clean the circuit board contacts with a small brush and isopropyl alcohol. Do not use any solvent that may attach polycarbonates, such as hydrocarbon chlorides, ketones, esters, etc. Do not use a cotton swab as small cotton filaments may remain on the contact area.

Clean the contact fingers on the relay armature by lightly brushing the contacts with a brush dipped in isopropyl alcohol.

To remove the relay armature from the relay, obtain a wire or tool with a diameter less than 0.040", such as a paperclip. Before removing the armature, mark the orientation of the armature to the housing. Orientation is important for proper operation. Place the tool in the slot on the side of the housing and gently lift the relay armature. See Fig. 6-11.

Clean the interior of the relay, around the pole pieces, with isopropyl alcohol. The interior of the relay must be completely dry before reinstalling the armature. Use air to dry excess alcohol from the housing.

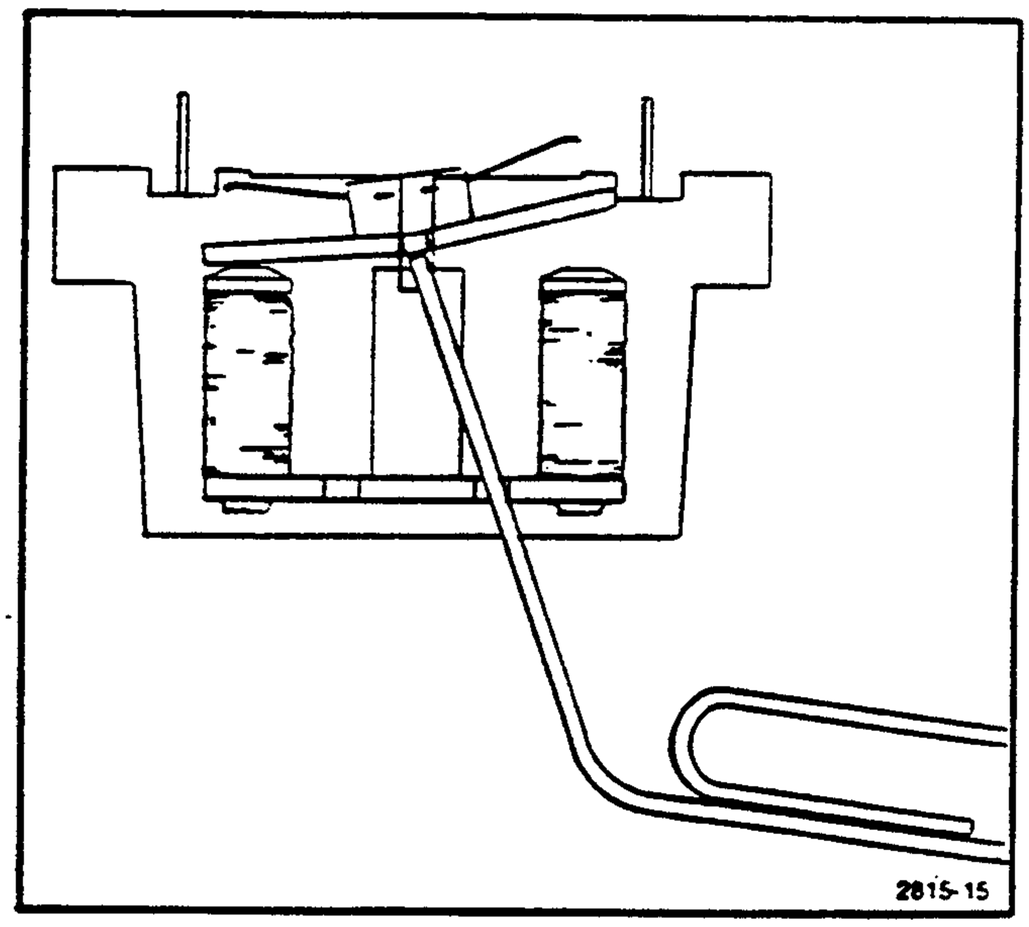


Fig. 6-11. Method of removing magnetic latch relay armature.

NOTE

Do not spray contact cleaner on the relays or anywhere on the board when they are installed on the board. Any foreign material between the pole pieces and the armature can cause faulty operation.

High Edge Board (A8)

No special maintenance procedures are required for this board.

GPIB Connector (A8A1)

Installed on the CG5001 only. No special maintenance procedures are required.

BATTERY. A battery to maintain calibration data in the CMOS RAM during power off times is located on the CPU board (A9).

Never use an ammeter to measure the short-circuit current supplied by the battery as the cell may be damaged.

Be careful to not short the battery terminals. If the battery terminals are shorted without power applied to the instrument, all calibration data in the RAM will be lost.

When the board is out of the instrument, lay the board on an insulating surface, such as sponge rubber.

To remove the battery from the board for replacement, unsolder the leads at the ends of the battery. The battery is attached with a cable tiedown strap. Cut the strap and replace it with a new strap when installing a new battery.

If the calibration constants are lost due to low battery voltage, ERROR 17, ERROR 18, and ERROR 13 (if last used setting of jumper is set) messages will appear on the display. To determine if the battery is defective, measure the voltage across the end terminals with a high impedance voltmeter. The voltage should be ≥ 3.6V. The life of the battery in the circuit is approximately three years.

WARNING

The Lithium battery used in this instrument should last about three years. This is a safety controlled part, and should be replaced with the same part number.

Do not dispose of the battery in a fire or open flame as the battery may explode.

CORRECTIVE MAINTENANCE

INTRODUCTION

Corrective maintenance consists of component replacement and instrument repair. Special techniques required to replace components in the CG 5010/ CG 5011 are given here.

Obtaining Replacement Parts

Electrical and mechanical parts can be obtained through your local Tektronix Field Office or representative. However, it may be possible to obtain many of the standard electronic components from a local commercial source. Before purchasing or ordering a part from a source other than Tektronix, Inc., check the Replaceable Electrical Parts list for the proper value, rating, tolerance, and description.

NOTE

When selecting replacement parts, remember that the physical size and shape of a component may affect its performance in the instrument.

Some parts are manufactured or selected by Tektronix, Inc. to satisfy particular requirements, or are manufactured for Tektronix, Inc. to our specifications. Most of the mechanical parts used in this instrument have been manufactured by Tektronix, Inc. To determine manufacturer of parts, refer to the Replaceable Parts list and the Cross Reference Index, Mfr. Code Number to Manufacturer.

When ordering replacement parts from Tektronix, Inc., include the following information:

1. Instrument type and Option number.
2. Instrument serial number.
3. A description of the part (if electrical, include complete circuit number).
4. Tektronix part number.

SOLDERING TECHNIQUES

WARNING

To avoid electric shock hazard, disconnect the instrument from the power source before soldering.

The reliability and accuracy of this instrument can be maintained only if proper soldering techniques are used when repairing or replacing parts. General soldering techniques which apply to maintenance of any precision electronic equipment should be used when working on this instrument. Use only 60/40 rosin core, electronic grade solder. The choice of soldering iron is determined by the repair to be made.

CAUTION

Several of the circuit boards in the CG 5010/ CG 5011 are multilayer type boards with a conductive path laminated between the top and bottom board layers. All soldering on these boards should be done with extreme care to prevent breaking the connections to this center conductor. The A3A9 Advanced Time Mark board (CG 5011 only) also contains surface-mounted components. Please refer to the paragraphs discussing surface-mounted component replacement.

Only experienced maintenance personnel should attempt repair of the following boards:

A1-Front Panel, A2-Main Interconnect, A3-Time Interface, A3A4-Counter (Trigger), A3A5-Counter (Slewing CG 5010 only), A4-Time Mark, A6-Reference, A7-Output, A9-CPU A3A9 (CG 5011 only)..

Do not allow solder or solder flux to flow under printed circuit board switches. The printed circuit board is part of the switch contacts; intermittent switch operation can occur if the contacts are contaminated.

When soldering on circuit boards or small wiring, use only a 15 watt, pencil type soldering iron. A higher wattage soldering iron can cause the etched circuit wiring to separate from the board base material and melt

the insulation from small wiring. Always keep the soldering iron tip properly tinned to ensure the best heat transfer to the solder joint. Apply only enough heat to remove the component or to make a good solder joint. To protect heat sensitive components, hold the component lead with a pair of long-nose pliers between the component body and the solder joint. Use a solder removing wick to remove excess solder from connections or to clean circuit board pads.

The following techniques should be used to replace a component on any of the circuit boards not mentioned in the preceding Caution note.

1. Touch the soldering iron to the lead at the solder connection. Never place the iron directly on the board as this may damage the board.

2. Melt a small amount of solder onto the component lead connection. This replaces the flux, which may have been removed during instrument cleaning, and facilitates removal of the component.

3. Grip the component lead with a pair of long-nose pliers. When the solder begins to flow, gently pull the component lead from the board. If unable to separate the lead from the board, try removing the other end of the component.

NOTE

Some components are difficult to remove from the circuit boards due to a bend placed in each lead during machine insertion of the component. The purpose of the bent leads is to hold the component in position during a flow-solder manufacturing process which solders all components at once. To make removal of machine inserted components easier, straighten the leads of the component on the back of the circuit board, using a small screwdriver or pliers, while heating the soldered connection.

4. Bend the leads of the replacement component to fit the holes in the circuit board. If the component is replaced while the board is mounted in the instrument, cut the leads so they will just protrude through the board. Insert the leads into the holes in the board so that the component is firmly seated against the board, or as originally positioned.

5. Touch the iron to the connection and apply enough solder to make a firm solder joint.

6. Cut off any excess lead protruding through the board (if not clipped in step 4).

7. Clean the area around the solder connection with a flux removing solvent. Be careful not to remove information printed on the circuit board.

COMPONENT REMOVAL AND REPLACEMENT

WARNING

To avoid electric shock hazard, always disconnect the instrument from the power source before removing or replacing components or plug-in units.

The exploded view drawings associated with the Replaceable Mechanical Parts list (located at the rear of this manual) may be helpful in the removal or disassembly of individual components or subassemblies.

Semiconductors

Semiconductors should not be replaced unless actually defective. If removed from their sockets during routine maintenance, return them to their original sockets. Unnecessary replacement of semiconductors may affect the adjustment of the instrument. When semiconductors are replaced, check the operation of circuits which may be affected.

Replacement semiconductors should be of the original type or a direct replacement. Lead configurations of the semiconductors used in this instrument are shown in Fig. 6-2. Some plastic case transistors have lead configurations which do not agree with those shown. If a replacement transistor is made by a different manufacturer than the original, check the manufacturer's basing diagram for correct basing. When removing soldered-on transistors, use a solder-removing wick to remove the solder from the circuit board pads. When replacing transistors requiring silicone grease for heat transfer, replace the silicone grease as necessary.

WARNING

Handle silicone grease with care. Avoid getting the silicone grease in your eyes. Wash hands thoroughly after use.

An extracting tool should be used to remove the in-line integrated circuits to prevent damaging the pins. This tool is available from Tektronix, Inc.; order Tektronix Part Number 003-0619-00. If an extracting tool is not available, use care to avoid damaging the pins. Pull slowly and evenly on both ends of the integrated circuit. Try to avoid disengaging one end from the socket before the other end.

Interconnecting Pins

Several methods of interconnection, including ribbon cable connectors, are used to electrically connect the circuit boards with other boards and components. When the interconnection is made with a coaxial cable, a special end-lead connector plugs into a socket on the board. Other interconnections are made with a pin soldered into the board.

Two types of mating connectors are used for these interconnecting pins. If the mating connector is mounted on a plug-on circuit board, a special socket is soldered into the board. If the mating connector is on the end of a lead, an end-lead pin connector is used which mates with the interconnecting pin. The following information provides the removal and replacement procedure for the various types of interconnecting methods.

COAXIAL-TYPE, END-LEAD CONNECTORS. Replacement of the coaxial type end lead connectors requires special tools and techniques; only experienced maintenance personnel should attempt to remove or replace these connectors. Damaged cable or wiring harness should be replaced as a unit. For cable or wiring harness part numbers, see the Replaceable Mechanical Parts list.

An alternative solution is to refer the replacement of the defective connector to your local Tektronix Field Office or representative. Fig. 6-12 gives an exploded view of a coaxial end lead connector assembly.

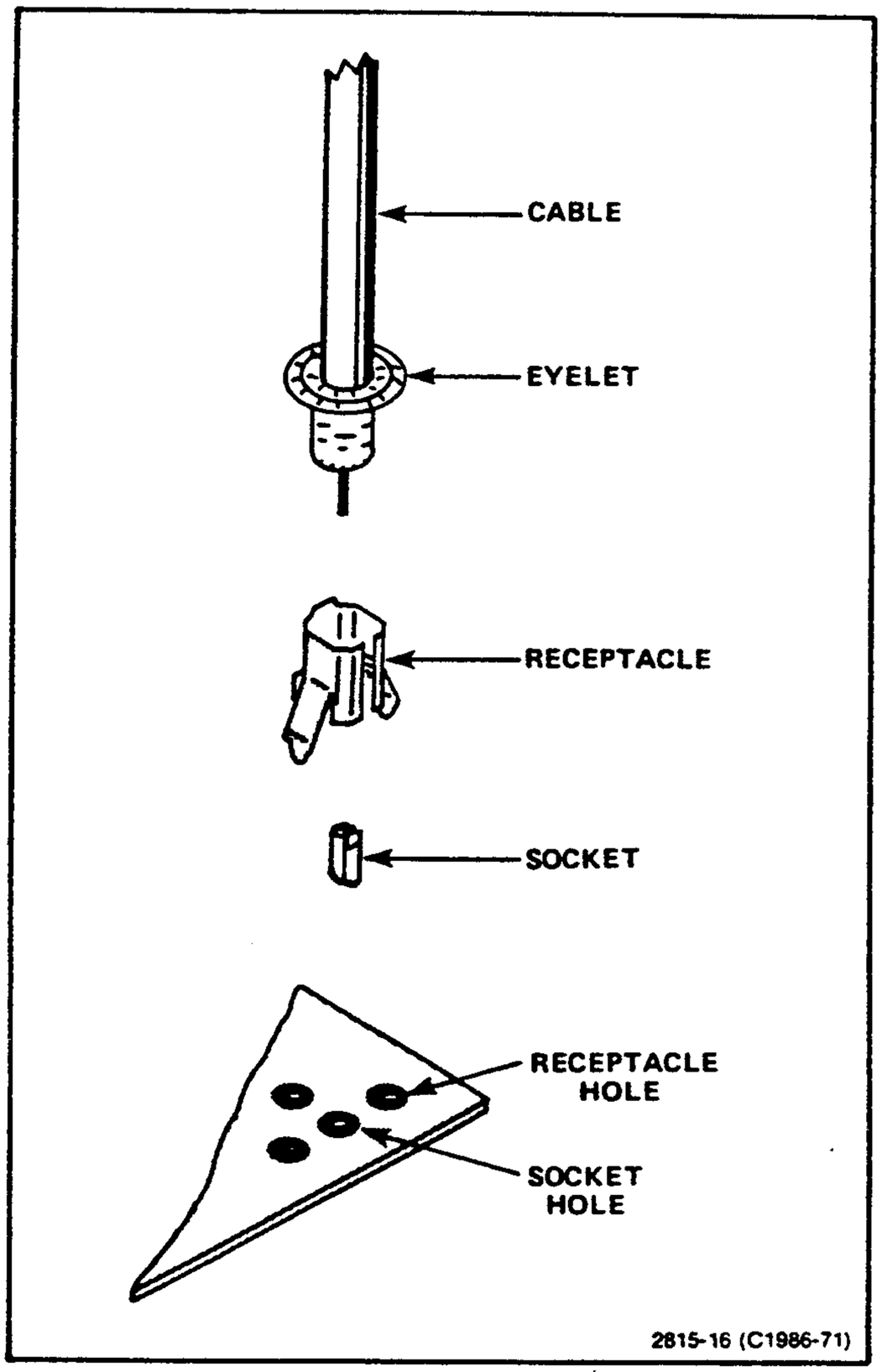


Fig. 6-12. Coaxial end lead connector assembly.

CIRCUIT BOARD PINS. A circuit board pin replacement kit (including necessary tools, instructions, and replacement pins with attached ferrules) is available from Tektronix, Inc.; order Tektronix Part Number 040-0542-00. Replacing circuit board pins on multilayer boards is not recommended. (The multilayer boards in this instrument are listed under Soldering Techniques in this section.)

To replace a damaged pin, first disconnect any pin connectors. Then unsolder the damaged pin and pull it from the board with a pair of pliers, leaving the ferrule (see Fig. 6-13) in the circuit board, if possible. If the ferrule remains in the circuit board, remove the spare ferrule from the replacement pin and press the new pin into the hole in the circuit board. If the ferrule is removed with the damaged pin, clean out the hole using a solder-removing wick and a scribe. Then press the replacement pin, with attached spare ferrule, into the circuit board.

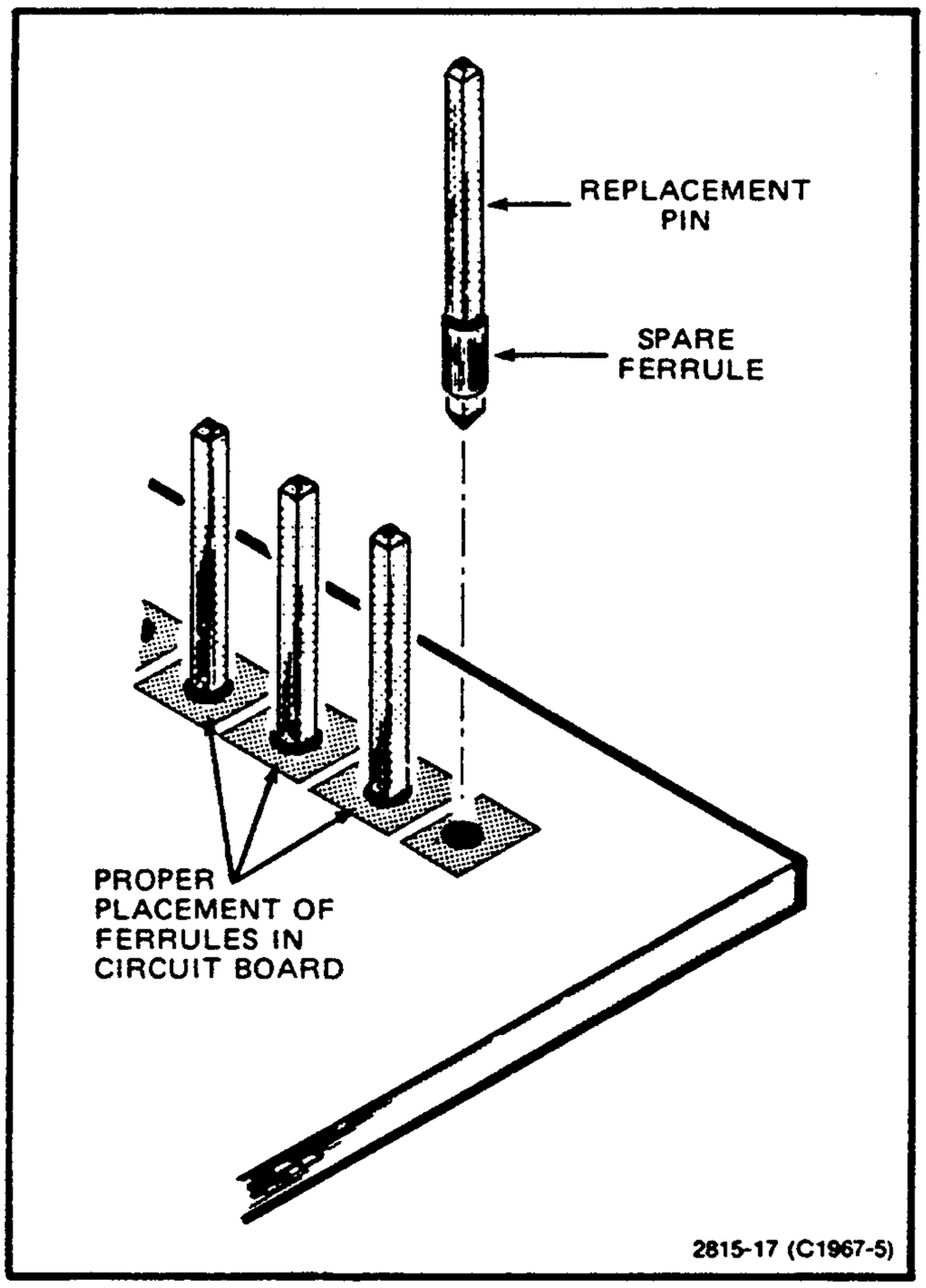


Fig. 6-13. Exploded view of circuit board pin and ferrule.

Position the replacement pin in the same manner as the original. Solder the pin to the circuit board on each side of the board. If the original pin was bent at an angle to mate with a connector, carefully bend the new pin to the same angle. Replace the pin connector.

CIRCUIT BOARD PIN SOCKETS. The pin sockets on the circuit boards are soldered to the back of the board. To remove or replace one of these sockets, first unsolder the pin (use a vacuum-type desoldering tool to remove excess solder). Then straighten the tabs on the socket and remove the socket from the board.

Place the new socket in the circuit board hole and press the tabs down against the board. Solder the tabs of the socket to the circuit board; be careful not to get solder inside the socket.

NOTE

The spring tension of the pin sockets ensures a good connection between the circuit board and the pin. This spring tension can be destroyed by using the pin sockets as a connecting point for spring loaded probe tips, alligator clips, etc.

MULTIPIN CONNECTORS. The pin connectors used to connect the wires to the interconnecting pins are clamped to the ends of the associated leads. To remove or replace damaged multipin connectors, remove the old pin connector from the end of the lead and clamp the replacement connector to the lead.

NOTE

Some multipin connectors are equipped with a special locking mechanism. These connectors cannot be removed by pulling on the wire(s). To remove the connectors from the pin(s) grasp the plastic holder and pull.

To remove an individual wire from the holder insert a scribe in the hole on the side of the holder and slide the extended portion under the holder. This will allow the wire to be removed from the holder.

Some of the pin connectors are grouped together and mounted in a plastic holder; the overall result is that these connectors are removed and installed as a multipin connector (see Troubleshooting Aids). If the individual end lead pin connectors are removed from the plastic holder, note the order of the individual wires for correct replacement in the holder.

Surface-Mounted Components

Surface-mounted components are used in this instrument. These components are mounted on pads on the circuit board, rather than through holes in the board. Lead configurations of these components are shown in Fig. 6-14.

The positive end of electrolytic capacitors is identified with a band. Other capacitors and resistors have no visible identifications. However, like their axial-leaded counterparts, their values can be measured with a meter.

Surface-mounted semiconductor devices are sensitive to static electricity discharges, and should be treated as outlined in the beginning of this section.

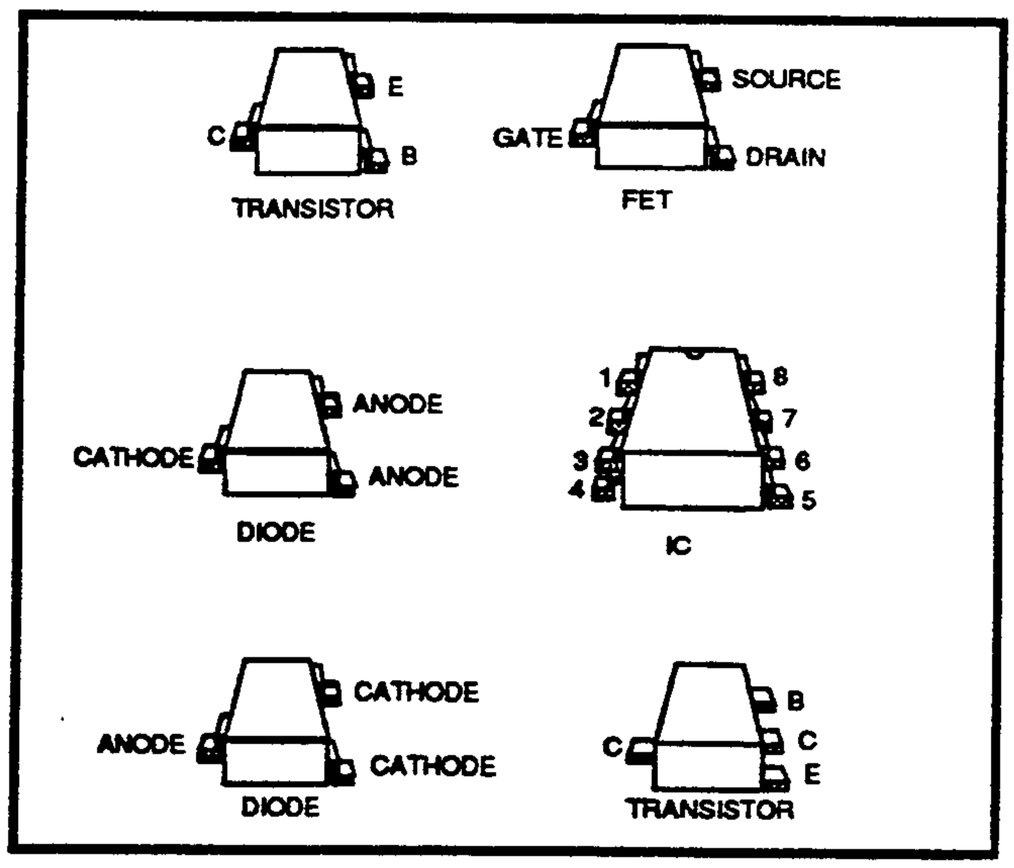


Fig. 6-14. Surface-mounted components lead configuration.

Replacing Surface-Mounted Components

A Hot Air Machine, such as Hart Model 200A manufacturd by Nu-Concept Systems Incorporated of Colmar, Pennsylvania, is recommended for unsoldering and soldering surface mounted components.

Table 6-2 lists tools that are suitable for servicing circuit boards with surface-mounted components.

Do not apply too much heat or pull hard on the components, as the pad/s on which the device is soldered may be lifted from the circuit board.

1. Unsolder the component.
2. Clean the board with isopropyl alcohol.
3. Solder in the replacement. Surface-mounted components are pretinned, and therefore require little or no solder.

CAUTION

If you use a soldering iron, use one with a small tip. After applying the solderpaste, touch the corner of the pad with the iron to fasten the component. Avoid touching the component with the hot soldering iron. Thermal shock causes hairline cracks that are not visible to the eye.

ADJUSTMENT AFTER REPAIR

After any electrical component has been replaced, the adjustment of that particular circuit should be checked, as well as the adjustment of any closely related circuits. Since the low voltage supplies affect all circuits, adjustment of the entire instrument should be checked if component replacements have been made in these supplies or if a power transformer has been replaced. See the Calibration section for a complete adjustment procedure.

Table 6-2
SERVICING TOOLS FOR BOARDS WITH SURFACE MOUNTED COMPONENTS

Description	Model Type	Tektronix Part No.
Hot Air Repair Terminal	Nu-Concepts Systems HART 200A	N/A
Tempilaq	Nu-Concepts Systems	N/A
Tempilaq Thinner	Nu-Concepts Systems TLTH	N/A
Flux Dispenser	Nu-Concepts Systems FD2	N/A
Soldering Iron	Hexacon Model SMD10	003-1401-00
Soldering Iron SMD Tips		
Semi-Chisel, 1/16"	Hexacon Model Z780X	003-1402-00
Conical, 1/32"	Hexacon Model Z783X	003-1403-00
Sharp Conical"	Hexacon Model Z784X	003-1404-00
Bevel, 1/32"	Hexacon Model Z786X	003-1405-00
Chisel, 1/16"	Hexacon Model Z787X	003-1406-00
Bevel, 1/16"	Hexacon Model Z788X	003-1407-00
0.062" Slot	Hexacon Model S303	003-1408-00
0.195" Slot	Hexacon Model S308	003-1409-00
0.195" Slot	Hexacon Model S314	003-1410-00
0.195" Slot	Hexacon Model S316	003-1411-00
0.195" Slot	Hexacon Modified S302	003-1412-00
Stainless Steel, Non Magnetic Tweezers		
Straight Tip		003-0464-00
Curved Tip		003-0465-00
Silver Solder		251-0514-00

CG 5011 DIAGNOSTIC PROCEDURES

INTRODUCTION

This part of the manual, along with the troubleshooting flow charts in the foldout pages, contain specific information for troubleshooting the CG 5010/ CG 5011.

This section contains six troubleshooting flow charts and four signature analysis tables related to the Central Processing section of the CG 5010/CG 5011 (Block Diagram A).

Two troubleshooting flow charts located in the foldout pages, Amplitude Mode Check (Troubleshooting Tree 1) or the Timing Mode Check (Troubleshooting Tree 22), are the lead-in charts that must be followed before proceeding with the specific analog circuit checks related to the amplitude and timing modes of the CG 5010/CG 5011 (Block Diagrams B, C, and D). The service technician is directed toward either of these two charts when a certain point is reached in the Power On Sequence Test located in this section.

Equipment Required

This part of the manual contains signature analysis tables and other data that the technician may use to verify proper operation, or detect malfunctions in the Central Processing section of the CG 5010/CG 5011. The diagnostic tests require the following equipment:

Digital Counter, TEKTRONIX DC 508, or equivalent (for frequency checks).
Digital Voltmeter, TEKTRONIX DC 501A, or equivalent (for checking power supplies).

Refer to Table 5-1 in the Calibration section for suggestions on oscilloscope systems, probes, adapters, terminations, and other items that may be useful for maintenance purposes.

Adjustment and Test Point Locations

To aid in locating test points and adjustable components called out in various portions of the Calibration section and troubleshooting flow charts, refer to the illustrations for the Adjustment and Test Point Locations and associated circuit board in the foldout pages. For convenience, a complete list of all test points in the CG 5010/ CG 5011 is given below.

NOTE

Refer to the associated circuit board illustration in the foldout pages to locate the following test points.

A1	TP1730	1	Control Pin
A2	TP1630	2	ST3 Start/Stop
A2	TP1636	2	CLK2
A2	TP1632	2	ST4 Start/Stop
A2	TP1638	2	Ground
A3A1	TP1210	6	Mixer Clock Signal to Offset Loop Phase Detector
A3A1	TP1220	6	Offset Loop Phase Detector Clock
A3A1	TP1140	6	Tune Output to Offset VCO
A3A1	TP1100	6	+5 V SW2 Ground
A3A6	TP1301	10	100 MHz Buffer Ground
A3A6	TP1302	10	100 MHz Buffer Output to Programmable Divider
A3A6	TP1101	10	Power Ground
A3A6	TP1310	11	10 kHz Clock to Coarse Steering Circuit
A3A6	TP1130	11	100 kHz Strobe Holdoff
A3A8	TP1040	12	Loop Filter Output
A3A8	TP1010	12	1 MHz Buffer Output

NOTE

There are no test point locations on the following circuit boards or schematics.

A3 4 5

A3A2 7

A3A3 6

A3A4 8

A3A5 9

A3A7 12

NOTE

Refer to the Adjustment Locations and Test Points illustration to locate test points on or near the top edge of the circuit board.

A4	TP1020	13	Power Input Ground
A4	TP1010	13	Fast Marker Shaper Ground
A4	TP1200	16	Chop Amplifier Ground
A4	TP1400	17	12 V Ground
A4	TP1410	17	+5 V Test Point
A4	TP1401	17	−12 V Test Point
A4	TP1501	17	+12 V Test Point
A4	TP1630	14	Slow Marker Sync (refer to A4 circuit board illustration)
A4	TP1620	14	10 MHz Drive (refer to A4 circuit board illustration)
A5	TP1802	18	Ground
A5	TP1702	19	+120V, +240V
A5	TP1104	18	HV Primary, +20V
A5	TP1103	19	Ground
A5	TP1102	19	+15 V
A5	TP1101	18	+5 V
A6	TP1200	22	Low SAC Output
A6	TP1202	22	Low SAC Input
A6	TP1304	20	Reference (DAC) Output
A6	TP1400	20	Floating Ground
A6	TP1401	22	High SAC Output
A7	TP1200	24	Pulse Head Drive Output
A7	TP1302	24	Floating Ground
A8	TP1500	27	High Edge Chop Signal
A8	TP1510	27	High Edge Chop Signal
A8	TP1400	27	High Edge Generator Output
A8	TP1402	27	−120 V −Current Limit Sense
A8	TP1520	27	−120 V
A8	TP1420	27	High Edge Error Signal
A8	TP1302	26	Power on Test Circuit Input
A8	TP1300	26	Head Programmer (Comparator Input)
A8	TP1202	26	Power On Test Reference (+2.73 V)
A8	TP1210	26	Power On Test (Window Comparator Input)
A8	TP1200	26	Ground
A8	TP1100	26	Power On Test (A8U1110 Output)

NOTE

Refer to the associated circuit board illustration in the foldout pages to locate the following test points.

A9	TP1071	28	CK1
A9	TP1062	28	ST2 Start/Stop
A9	TP2071	28	ST1 Start/Stop
A9	TP2066	28	Ground

SELF-TEST DESCRIPTION

Introduction

This is a short outline of the sequence of events occurring during the power-on sequence of the CG 5010/CG 5011. The CG 5010/CG 5011 goes through a self-test sequence which verifies the RAM and ROM within the instrument and performs some checking of the analog and timing hardware. The results of these tests are in the form of error codes on the front panel and service requests with error codes to a GPIB controller. The self-test sequence can also be initiated by a TEST command sent over the GPIB by a controller.

Components

The CG 5010/CG 5011 is controlled by a M6808 microprocessor with one 32kX8 ROM, 2kX8 of CMOS RAM with battery keep alive, two PIAs for communication to the hardware within the instrument and a general purpose interface adapter (GPIA) for implementation of the GPIB interface.

A serial bus extends from the CPU portion of the instrument to the analog and timing hardware and is used to program the various settings. This programming bus also has provisions to read status from the other circuit boards plugged into the Main Interconnect board (A2) and determine possible error conditions.

On the High Edge board (A8) there is a special comparator circuit (Power On Test, schematic 26) that can be switched to the output circuitry to verify ranges of output voltages. At power on, and at initiation of the TEST command, the microprocessor sequences through special setting combinations to test the operation of the circuits in the instrument.

Self-Test Sequence

This is a description of the sequence of events from initiation of power on or when the TEST command is received from the GPIB. At power on, the:

1. Interrupts are masked.

2. PIAs are initialized (A9U1701 and A9U1721).

3. GPIA (A9U1124) is reset.

4. SELF-TEST message is displayed.

5. Part of the unprotected CMOS memory is tested.

If there is an error detected, the processor will try to indicate ERROR 12 RAM and then loop at address $0200.

6. The ROM is checked by calculating the checksum and comparing the result to the first two bytes in the ROM. If there is an error, the processor tries to indicate with message ERROR 61 ROM. After indicating the bad ROM, the processor loops continuously:

```
LOOP   LDA A $C005
       LDA A $00
       BRA LOOP
```

Where LDA A means, read the contents of the specified memory location and place it into the A accumulator. This provides a repeating test pattern to verify the chip select.

7. If the ROM on assembly A9 checks out, then the rest of the unprotected CMOS memory is checked. If there is an error detected, ERROR 11 will be indicated, and a loop at the bad location will be repeated continuously.

NOTE

Refer to RAM TEST, ROM TEST, and CMOS TEST parts of troubleshooting information for more detail.

NOTE

The above self tests act as a verification of the basic components of the central processor and the address decoding circuits.

8. Initialize the GPIA and test for a valid GPIB Address and EOM terminator stored in non-volitile memory. If either is found to be in error, an ERROR 18 is displayed and the default address of 15 with EOI only is set.

The following self tests verify the analog and timing circuitry.

9. Initialize the shift registers on all of the circuit boards.

Register	Hex Output
A6U1121	$82
A6U1242	$80
A6U1341	$34
A6U1541	$1B
A6U1841	$7B
A8U1130	$88
A7U1020	$30
A7U1130 A7U1234 A7U1833	These registers operate to close K1433, K1300, K1314, and K1432; all others open.
A4U1320	$48
A4U1420	$00
A4U1421	$4B
A4U1520	$06
A3A6U1220	$21
A3A6U1120	$81
A3A5U1000 (CG 5010 only)	$2C
A3A5U1000 (CG 5011 only)	$00
A3A5U1100 (CG 5010 only)	$34
A3A4U1000 (CG 5010 only)	$26
A3A4U1100 (CG 5010 only)	$2F
A3A2U1001 (CG 5010 only)	$C5

10. The next test performed is the test of the shift registers. The test is accomplished by shifting a 10101010 pattern through all the shift registers and reading back the pattern through error lines E1 or E4 depending on the assembly being tested (see Fig. 4-3 in the Theory of Operation section). The indicated error identifies the chain in question and then the processor cycles all of the shift registers and their strobes (TS1, TS2, VS1, and VS2) continuously. If there is no error in the shift registers (ERRORs 95, 96, 97, or 98), the self test continues with a block called the Amplitude Test.

11. Buzz the mag latch relays.

12. The Amplitude Test is used to verify portions of the analog circuitry used to generate signals for VOLTAGE, CURRENT, and EDGE modes. The tests are as follows:

 a. Set up for VOLTAGE mode, 1V/D. Check for 1 V into 50 Ω load by switching output to Power On Test circuit and using the current loop as a 50 Ω load; if this test fails, it is ERROR 51.

 b. Set up for -1V into 50 ohm load. If this test fails, it is ERROR 71.

 c. Take away the 50 Ω termination and set up for 1 V into high impedance load; if this test fails, it is ERROR 52. Tests 11a through 11d were DC tests.

 d. Set up for -1V into high impedance load. If this test fails, it is ERROR 72.

 e. The next test is to verify the chopping circuitry by setting the output of the LOW SAC to 1 V, high impedance load, 1 kHz; if this test fails, it is ERROR53. The preceding tests are used to verify the operation, not the accuracy, of the LOW SAC amplifier.

 f. Similar tests are done to verify the HIGH SAC by setting the output to VOLTAGE Mode, 20 V and high impedance load, DC and 1 kHz chopping tests are done. The DC and 1 kHz failures are ERROR 54 and 55, respectively.

 g. Set up for -20V into high impedance load. DC only testing is done. If this test fails, it is ERROR 73.

 h. Next is a check of CURRENT mode by setting the output to 100 mA and terminating into 50 Ω, again using the current loop. The DC and 1 kHz chopping tests are performed. The DC and 1 kHz failures are ERROR 56 or 57, respectively.

 i. The hardware is reconfigured to check the EDGE modes. Tests for DC level and 1 kHz chopping of both the plus and minus edge generators are performed on the LOW

EDGE circuitry. The failures are ERRORS 81, 82, 83, or 84, respectively.

j. The MID EDGE circuitry is checked next by setting the output to 5 V and doing the DC and 1 kHz tests. Failures are ERROR 85 or 86.

k. The last EDGE test verifies the HIGH EDGE generator at 20 V into a high impedance load, again with the DC and 1 kHz chop tests. Failures are ERROR 87 or 88.

NOTE

The tests of the amplitude and timing hardware allow the user to continue past each failure (press CONTINUE pushbutton) or to use the setup for troubleshooting the error condition.

13. The self-test routine continues with a verification of the timing section, called the Time test. This is accomplished by setting up the Markers and Slewed Edge (CG 5010 only) sections to gate a 10 kHz pulse train, derived from the crystal reference on the Time Mark board (A4) with a 1, .5, or .2 Hz square wave signal derived from the output of the Countdown circuit (schematic 14).

 a. The processor sets up the hardware, looks at the resulting output waveform, and counts the number of pulses in a burst. For the 1 Hz gate, 5000 pulses should be accumulated; if not, ERROR 91 is indicated. For the .5 and .2 Hz gates, the corresponding errors are 92 and 93.

 b. Before the pulses are generated, an Offset Loop Out-of-Lock condition is looked for, as the error status signal is shared on the same line as this pulse burst output. This out-of-lock condition makes it impossible to run the timing verification test, and ERROR 94 is indicated.

14. Once the time tests are completed, the processor proceeds by verifying the calibration constants in CMOS memory by checking a saved checksum of those constants. If there is any discrepancy, ERROR 17 is indicated and a flag is set to indicate to the user that the amplitude outputs that have a cal constant associated with it may be in error by as much as 10%.

15. The last test done in this power on self-test is a possible verification of saved settings. Normally, the instrument powers up to a predefined state—VOLTAGE mode, 1 V/D, etc. However, the user may select the option of powering up to the settings that were in use when power was last removed from the instrument. If this is the case, the validity of those saved settings must be verified before allowing the hardware to go to those settings; the microprocessor does not allow illegal settings.

NOTE

To select the power up default settings to those settings when the instrument was last powered down, set the LUS jumper J1032 to the ON postiion. Refer to schematic 32 and the Parts Location Grid for the CPU board (A9).

When the self-test routine is completed, the instrument is ready for operation and is either accessible via the front panel, or it may be programmed from the GPIB if an appropriate controller is attached to the interface.

CMOS TEST

This test is automatically executed at power on, and will perform the following actions if failed. First ERROR 11 will be displayed on the front panel. This shows that the region of RAM with stored settings has an error.

Once ERROR 11 is indicated, the following test routine executes:

Write 10101010 pattern to bad memory location (D7-D0);



read back pattern,

write complement,

and repeat forever.

This has the effect of a pulse pattern appearing on the data bus. By observing the address during the memory write, the bad location may be noted.

While this test is running, only memory locations in the range $0300-$03FF and $F800-$FFFF should be

accessed. Addresses outside of this range indicate problems in the address decode circuitry.

If after replacing A9U1043 the problem still remains, verify presence of R/W signal, the chip enable lines, and check the power supplies.

RAM TEST

This test will automatically be executed when the microprocessor indicates ERROR 12 on the front panel display. The microprocessor checks 768 bytes of RAM in the address range $0000-$02FF. Once ERROR 12 is indicated, the following test routine is executed:

Write 10101010 pattern location $0300 (D7-D0);

read back pattern,

write complement,

and repeat forever.

Either A9U1043 may be bad or the supporting circuitry (i.e., address decode) may make the RAM appear to be faulty.

To isolate problems to the RAM or to the supporting circuitry, verify presence of R/W signal, the chip enable lines, and check the power supplies.

ROM TEST

The error code indicated on the front panel (ERROR 61) should indicate replacement of the ROM. If the problem persists, check for shorted address lines or a failure of U1063. Generally, however, these errors will cause the instrument to not even get the SELF TEST message on the front panel.

After indicating the error code, the microprocessor executes a test routine which does the following:

Set A15 high.

Access memory locations:

$8005 A9A1U1012

Set A15 low, then high.

Repeat forever.

By observing data bus contents during the indicated memory accesses, the data bus should indicate most significant byte of address. This means that $80 should be on the bus during the $8005 access.

SHIFT REGISTER TEST

NOTE

Refer to Fig. 4-3 in the Theory of Operation section (Vol.1).

This test will indicate if there is any break in the string of shift registers used to set up the hardware in the amplitude and timing circuitry. The microprocessor reads programming information from the front panel or via the GPIB for new setting parameters, calculates the proper information, and then sets up the shift registers in each string.

The microprocessor tests each shift register chain by first loading all registers with a known bit pattern.

NOTE

Only the shift register is loaded with the pattern; the output latches do not necessarily follow the same information in the shift register portion of each register.

The microprocessor then reads out the pattern by shifting in new data. As it is being read out any discrepancies are noted, and at the end of the test, the strings with errors are indicated on the front panel.

The order of errors reported (order of tests) are:

Error 95 TS1

Error 97 VS1

Error 98 VS2

Error 96 TS2

Press the CONTINUE button to step past each error. After stepping past ERROR 96, the microprocessor then cycles a pattern through all the shift registers for fault isolation. The pattern sent is an alternating 1-0 level, simulating a pulse train 28 pulses long, followed by activating the VS2, TS1, TS2, and VS1 strobes in sequence. This is repeated until power is removed and fault is corrected.

NOTE

Check the power supplies first, as this may cause failure of the SHIFT REGISTER TEST.

NOTE

Jumper J1031 may be set to cause the CG 5011 to NOT WAIT for the CONTINUE button to clear the displayed error codes during the self-test routine. Refer to schematic 30 and the Parts Location Grid for the CPU board (A9).

AMPLITUDE TEST

The Amplitude Test is performed during the self-test routine. The error codes related to this test are ERRORS 51 through 57, 71 through 73, and 81 through 88. Refer to CG 5010/CG 5011 Error Messages, block diagrams, and troubleshooting flow charts to identify the faulty circuit blocks.

Look for combinations of error codes which indicate a failure in a circuit common to the circuit block(s) that failed. The troubleshooting chart for the POWER ON TEST CHECK in the foldout pages will be helpful in identifying some combinations of error codes.

TIME TEST

The Time Test is performed during the self-test routine. The error codes related to this test are ERRORS 91 through 94. Refer to the CG 5010/CG 5011 Error Messages, block diagrams, and troubleshooting charts to identify the faulty circuit block(s).

Look for combinations of error codes which indicate a failure common to the circuit block(s) that failed.

FRONT PANEL TEST

Reset and Display Test

NOTE

The display lamp test illuminates all display characters, lighted pushbuttons, and all annunciators in the readout window, except TLK and LSN.

Press the CONTINUE button and hold.

Check Pushbuttons and Controls

Press the INST ID pushbutton and check for the GPIB address in the display.

Each key push and control change should either change setting or indicate an ENTRY ERROR (if that key push is an invalid command). The pushbuttons are arranged in a matrix format. If there is a pattern (row or column) failure, check A1U1221, A2U1621, or A9U1701; otherwise, replace the defective key switch or other associated component.

DISPLAY TEST

The troubleshooting flow chart for the Display Test is located in Fig. 6-14. Use this chart if the display is dark, an error code is displayed, or if the display is random or missing information.

CPU POWER TEST

Perform the procedure outlined in the troubleshooting chart for Fig. 6-16 if the CG 5010/CG 5011 front panel display appears dark.

POWER ON SEQUENCE TEST

Perform the procedure outlined in the troubleshooting chart for Fig. 6-17 if the output(s) from the CG 5010/CG 5011 appear to be faulty, SELF TEST is displayed continuously, all displays are lit and flashing, or relay switching is not audible during the self-test routine.

VARIABLE AND UNITS/DIV TEST

Perform the procedure outlined in the troubleshooting chart for Fig. 6-18 if the VARIABLE control or the UNITS/ DIV control appears faulty.

HEAD SENSE TEST

Perform the procedure outlined in the troubleshooting chart for Fig. 6-19 if the CG 5010/CG 5011 does not seem to respond to presence of the Pulse Head or Comparator accessory connected to the main OUTPUT connector.

DISPLAY TEST

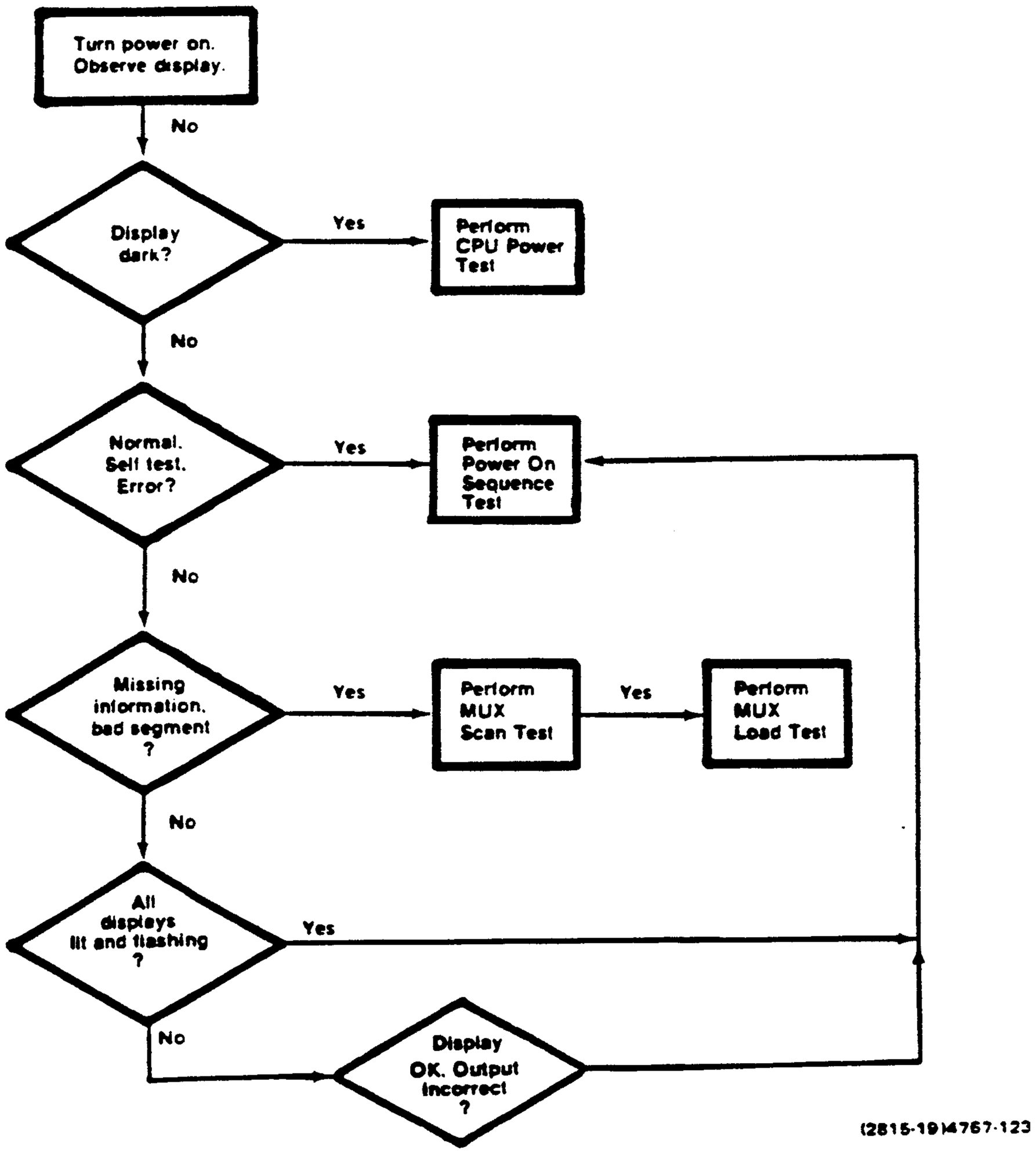


Fig. 6-15. Troubleshooting chart for the Display Test.

CPU POWER TEST

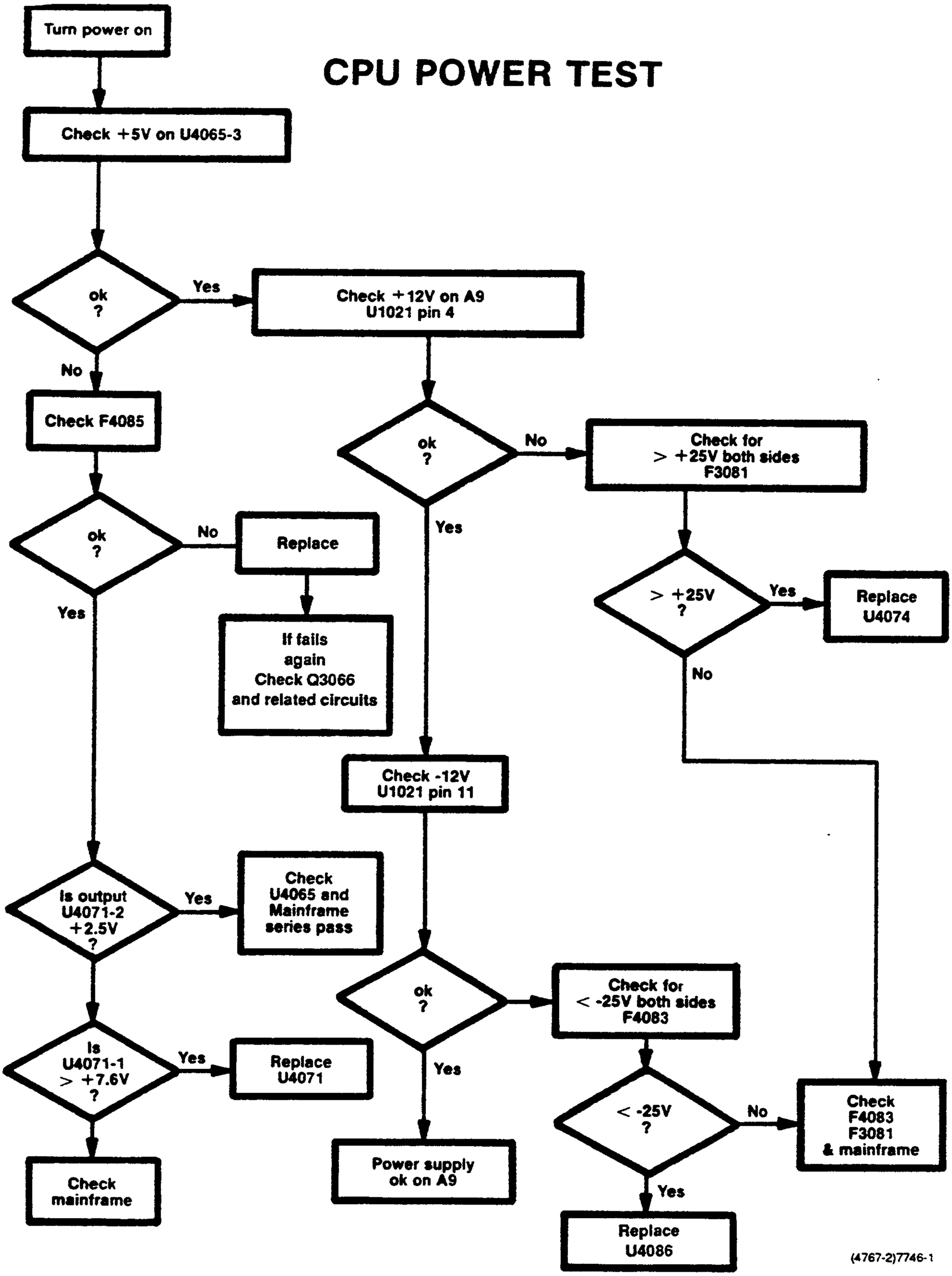


Fig. 6-16. Troubleshooting chart for the CPU Power Test.

POWER ON SEQUENCE TEST

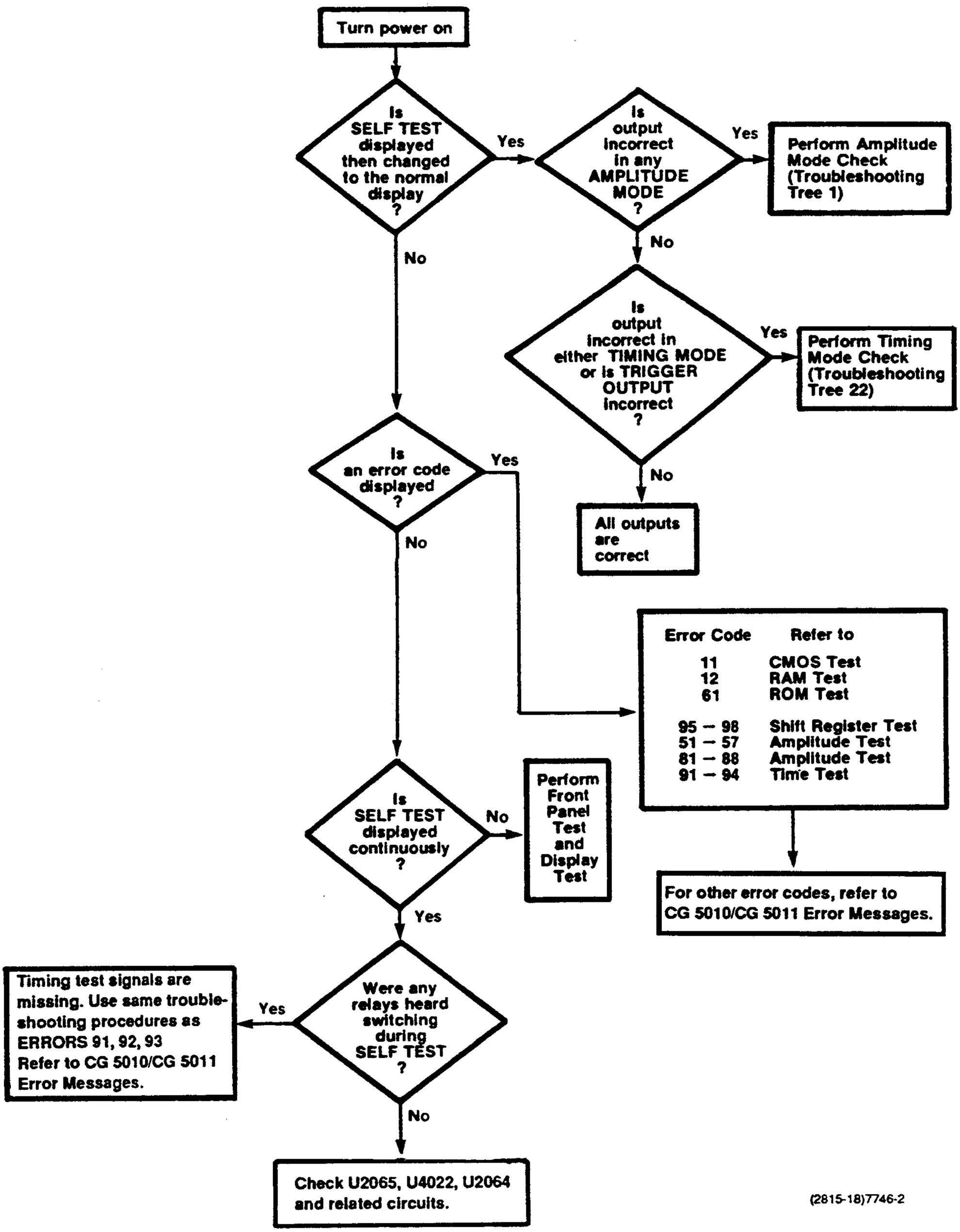


Fig. 6-17. Troubleshooting chart for the Power On Sequence Test.

VARIABLE and UNITS/DIV TEST

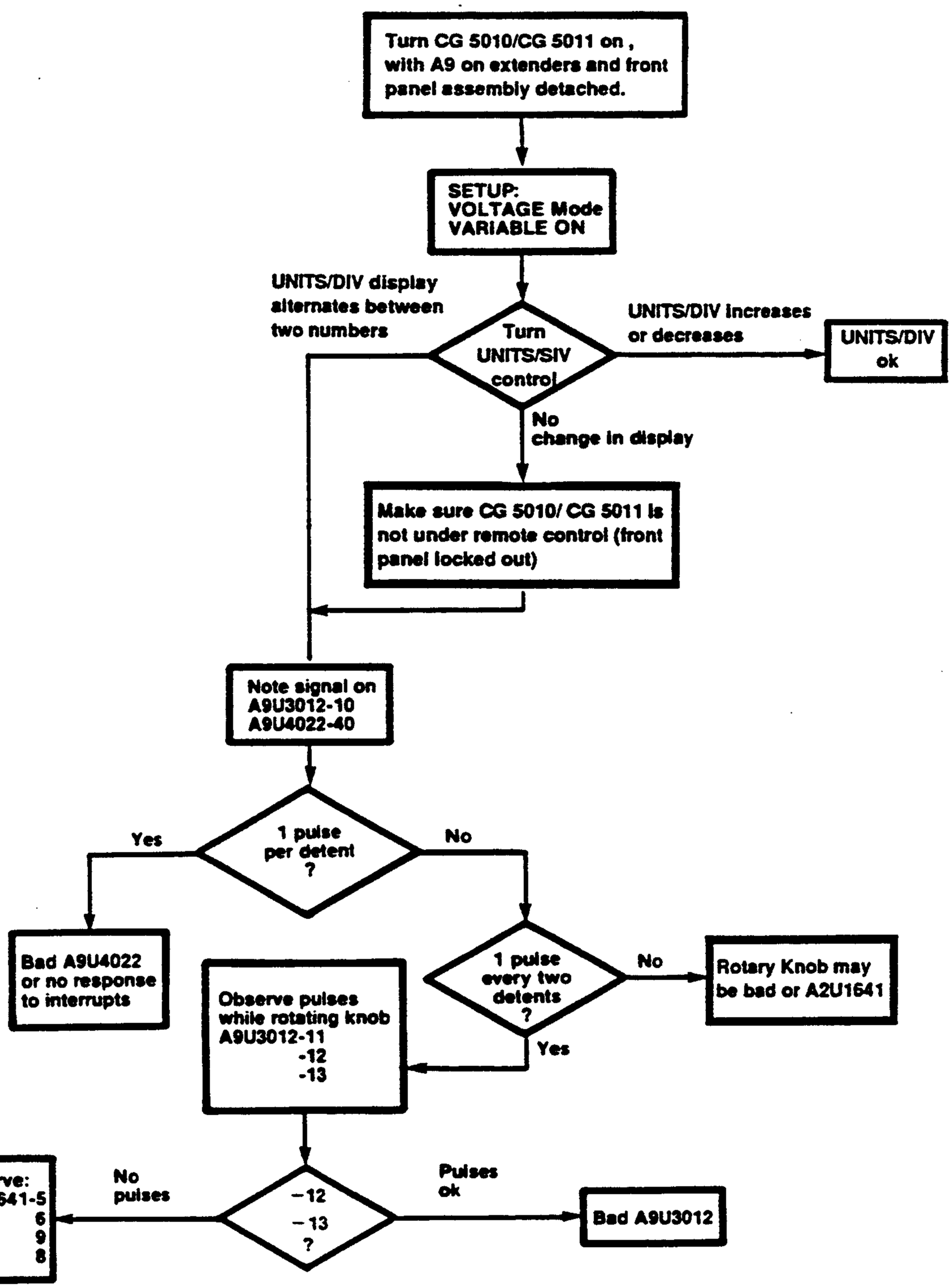
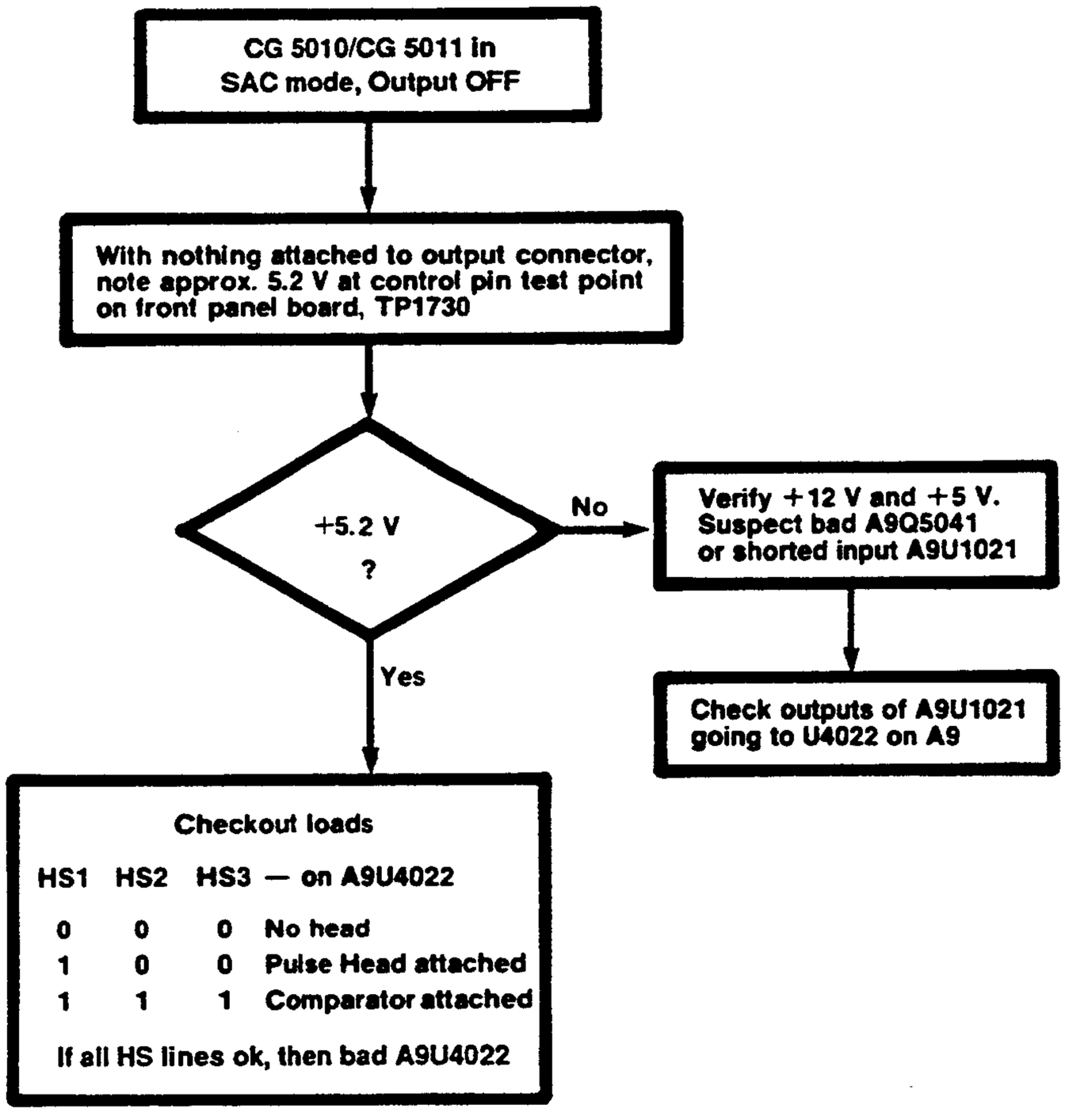


Fig. 6-18. Troubleshooting chart for the Variable and Units/Div Test.

HEAD SENSE TEST



(2815-21)7746-4

Fig. 6-19. Troubleshooting chart for the Head Sense Test.

DATA REGISTER FORMATS

Introduction

The CG 5011 uses 17 eight bit shift register/latches to control the amplitude and timing circuitry. The microprocessor circuitry loads these registers with data to produce the desired output setting. See Table 6–3.

The data presented is in hexadecimal format and represents the output of the registers. All calibration constants are set to 0. This means the data measured in registers R2 and R3 may differ from the values listed in Table 6–3.

If no data is shown for a register output or a register is not listed, this means no data is present because its power supplies have been disabled.

The outputs of registers V3, V4, and V5 are set to 00 (hexadecimal), except for a brief period to change the output relays. This changing condition is not presented in the format list.

In amplitude mode, the first half of M1 data may be 0 or 4, depending upon previous time mode settings.

In the SLEWED EDGE mode (CG 5010 only), measuring the outputs of T3, T4, T5, and T6 must be done when the register has pin 15 at logic 1. The measurement can best be made by triggering an oscilloscope with pin 15 output.

A data register output may be verified by selecting a setting listed below the desired mode in Table 6–3 and measuring the register's output.

EXAMPLE: If R3 data is 34 (hex), then U1341 on board A6 has the following output:

Pin	4	5	6	7	14	13	12	11		
	0	0	1	1	0	1	0	0	=	34 hex

0 = logic low
1 = logic high
X = independent of setting

Register Definitions

Register	Circuit Number
R1	A6U1121
R2	A6U1242
R3	A6U1341
R4	A6U1541
R5	A6U1841
V1	A8U1130
V2	A7U1020
V3	A7U1130
V4	A7U1234
V5	A7U1833
M1	A4U1320
M2	A4U1420
M3	A4U1421
M4	A4U1520
T1	A3A6U1220
T2	A3A6U1120
T3	A3A5U1000 (CG 5010 only)
T4	A3A5U1100 (CG 5010 only)
T5	A3A4U1000 (CG 5010 only)
T6	A3A4U1100 (CG 5010 only)
T7	A3A2U1001 (CG 5010 only)

Table 6-3
DATA REGISTER FORMAT LIST

VOLTAGE MODE SETTINGS

MODE V;U/D 1.0E+0;MULT 1;FREQ 1.0E+3;POS;FXD;PCT 0.0;OUT ON;LDZ HI;TRIG OFF;

SETTING	R1	R2	R3	R4	R5	V1	V2	V3	V4	V5	M1	M2	M3	M4	T1	T2
MULT 1;	82	80	24	9B	7B	08	65	00	00	00	48	XX	45	4E	XX	X1
MULT 2;	82	80	24	8B	7B	08	65	00	00	00	48	XX	45	4E	XX	X1
MULT 3;	82	80	24	BA	FB	08	65	00	00	00	48	XX	45	4E	XX	X1
MULT 4;	82	80	24	DA	FB	08	65	00	00	00	48	XX	45	4E	XX	X1
MULT 5;	82	80	24	9A	FB	08	65	00	00	00	48	XX	45	4E	XX	X1
MULT 6;	82	80	24	EA	FB	08	65	00	00	00	48	XX	45	4E	XX	X1
MULT 8;	82	80	24	CA	FB	08	65	00	00	00	48	XX	45	4E	XX	X1
MULT 10;	82	80	24	8A	FB	08	65	00	00	00	48	XX	45	4E	XX	X1

MODE V;U/D 1.0E+0;MULT 1;FREQ 1.0E+3;POS;FXD;PCT 0.0;OUT ON;LDZ HI;TRIG OFF;

SETTING	R1	R2	R3	R4	R5	V1	V2	V3	V4	V5	M1	M2	M3	M4	T1	T2
LDZ HI;	82	80	24	9B	7B	08	65	00	00	00	48	XX	45	4E	XX	X1
LDZ 50;	82	80	A4	1B	7B	08	65	00	00	00	48	XX	45	4E	XX	X1

MODE V;U/D 1.0E+0;MULT 1;FREQ 1.0E+3;POS;FXD;PCT 0.0;OUT ON;LDZ HI;TRIG OFF;

SETTING	R1	R2	R3	R4	R5	V1	V2	V3	V4	V5	M1	M2	M3	M4	T1	T2
OUT ON;	82	80	24	9B	7B	08	65	00	00	00	48	XX	45	4E	XX	X1
OUT OFF;	82	80	34	9B	7B	08	6A	00	00	00	48	XX	45	4E	XX	X1

MODE V;U/D 1.0E+0;MULT 1;FREQ 1.0E+3;POS;VAR;PCT 0.0;OUT ON;LDZ HI;TRIG OFF;

SETTING	R1	R2	R3	R4	R5	V1	V2	V3	V4	V5	M1	M2	M3	M4	T1	T2
PCT 0.0;	82	80	24	9B	7B	08	65	00	00	00	48	XX	45	4E	XX	X1
PCT -5.0;	82	99	24	9B	7B	08	65	00	00	00	48	XX	45	4E	XX	X1
PCT -9.9;	82	B1	A4	9B	FB	08	65	00	00	00	48	XX	45	4E	XX	X1
PCT 5.0;	82	67	24	9B	FB	08	65	00	00	00	48	XX	45	4E	XX	X1
PCT 9.9;	82	4E	A4	9B	FB	08	65	00	00	00	48	XX	45	4E	XX	X1

MODE V;U/D 2.0E+0;MULT 1;FREQ 1.0E+3;POS;FXD;PCT 0.0;OUT ON;LDZ HI;TRIG OFF;

SETTING	R1	R2	R3	R4	R5	V1	V2	V3	V4	V5	M1	M2	M3	M4	T1	T2
U/D 2.0E+0;	82	80	24	8B	7B	08	65	00	00	00	48	XX	45	4E	XX	X1
U/D 2.0E+1;	01	80	24	8B	DE	08	65	00	00	00	48	XX	45	4E	XX	X1
U/D 2.0E+1;	01	80	26	8B	7E	08	65	00	00	00	48	XX	45	4E	XX	X1

Table 6–3 (cont)

VOLTAGE MODE SETTINGS (cont)

MODE V;U/D 1.0E+0;MULT 1;FREQ DC;NEG;FXD;PCT 0.0;OUT ON;LDZ HI;TRIG OFF;

SETTING	R1	R2	R3	R4	R5	V1	V2	V3	V4	V5	M1	M2	M3	M4	T1	T2
U/D 2.0E+0;	82	80	B4	8B	7D	08	65	00	00	00	48	XX	45	4E	XX	X1
U/D 2.0E+1;	01	80	B5	87	DF	08	65	00	00	00	48	XX	45	4E	XX	X1
MULT 10;	01	80	BD	87	7F	08	65	00	00	00	48	XX	45	4E	XX	X1

CURRENT MODE SETTINGS

MODE CUR;U/D 1.0E–3;MULT 1;FREQ 1.0E+3;POS;FXD;PCT 0.0;OUT ON;LOOP OFF;TRIG OFF;

SETTING	R1	R2	R3	R4	R5	V1	V2	V3	V4	V5	M1	M2	M3	M4	T1	T2
OUT ON;	84	7E	04	9F	CF	08	65	00	00	00	48	XX	45	4E	XX	X1
OUT OFF;	80	7E	34	9F	CF	08	6A	00	00	00	48	XX	45	4E	XX	X1
LOOP ON;	84	7E	04	9F	CF	08	70	00	00	00	48	XX	45	4E	XX	X1
LOOP OFF;	80	7E	34	9F	CF	08	7A	00	00	00	48	XX	45	4E	XX	X1

MODE CUR;U/D 1.0E–3;MULT 1;FREQ DC;POS;FXD;PCT 0.0;OUT OFF;LOOP ON;TRIG OFF;

SETTING	R1	R2	R3	R4	R5	V1	V2	V3	V4	V5	M1	M2	M3	M4	T1	T2
FREQ DC;	84	7E	14	9F	CF	08	70	00	00	00	48	XX	4B	06	XX	X1
FREQ 1.0E+1;	84	7E	04	9F	CF	08	70	00	00	00	48	XX	49	4E	XX	X1
FREQ 1.0E+2;	84	7E	04	9F	CF	08	70	00	00	00	48	XX	47	4E	XX	X1
FREQ 1.0E+3;	84	7E	04	9F	CF	08	70	00	00	00	48	XX	45	4E	XX	X1
FREQ 1.0E+4;	84	7E	04	9F	CF	08	70	00	00	00	48	XX	43	4E	XX	X1
FREQ 1.0E+5;	84	7E	04	9F	CF	08	70	00	00	00	48	XX	41	4E	XX	X1
FREQ 1.0E+5;	84	7E	04	9F	CF	08	70	00	00	00	48	XX	41	4D	XX	X1

EDGE MODE SETTINGS

MODE EDGE;U/D 1.0E+0;MULT 1;FREQ 1.0E+3;NEG;FXD;OUT ON;LDZ 50;TRIG NORM;

SETTING	R1	R2	R3	R4	R5	V1	V2	V3	V4	V5	M1	M2	M3	M4	T1	T2
U/D 1.0E+0; NEG;	80	90	B5	8F	B7	08	60	00	00	00	4C	XX	45	4E	XX	X1
U/D 1.0E+0; POS;	80	8D	35	8F	B7	08	60	00	00	00	4C	XX	45	4E	XX	X1
U/D 2.0E+0;	80	80	31	8F	DB	08	60	00	00	00	4C	XX	45	4E	XX	X1
U/D 2.0E+1;	00	80	31	8F	DB	04	60	00	00	00	4C	XX	45	4E	XX	X1

Table 6-3 (cont)

FAST EDGE MODE SETTINGS

MODE FAST EDGE;FREQ 1.0E+3;POS;FXD;OUT ON;LDZ 50;TRIG NORM;

SETTING	R1	R2	R3	R4	R5	V1	V2	V3	V4	V5	M1	M2	M3	M4	T1	T2
POS;	80	80	14	80	FB	10	40	00	00	00	4C	XX	45	4E	XX	X1
NEG;	80	80	14	80	FD	10	C0	00	00	00	4C	XX	45	4E	XX	X1

MARKERS MODE SETTINGS

MODE MKRS;U/D 5.0E+0;FXD;PCT 0.0;OUT ON;MAG X10;TRIG NORM;

SETTING	R1	V1	V2	V3	V4	V5	M1	M2	M3	M4	T1	T2
U/D 5.0E+0;	C0	08	6A	00	00	00	26	23	29	5E	21	85
U/D 2.0E+0;	C0	08	6A	00	00	00	16	24	29	5E	21	85
U/D 1.0E+0;	C0	08	6A	00	00	00	OE	25	29	5E	21	85
U/D 5.0E-1;	C0	08	6A	00	00	00	26	10	27	5E	21	85
U/D 2.0E-1;	C0	08	6A	00	00	00	16	11	27	5E	21	85
U/D 1.0E-1;	C0	08	6A	00	00	00	OE	12	27	5E	21	85
U/D 5.0E-2;	C0	08	6A	00	00	00	26	13	25	5E	21	85
U/D 2.0E-2;	C0	08	6A	00	00	00	16	14	25	5E	21	85
U/D 1.0E-2;	C0	08	6A	00	00	00	OE	15	25	5E	21	85
U/D 5.0E-3;	C0	08	6A	00	00	00	26	08	23	5E	21	85
U/D 2.0E-3;	C0	08	6A	00	00	00	16	09	23	5E	21	85
U/D 1.0E-3;	C0	08	6A	00	00	00	OE	0A	23	5E	21	85
U/D 5.0E-4;	C0	08	6A	00	00	00	26	0B	21	5E	21	85
U/D 2.0E-4;	C0	08	6A	00	00	00	16	0C	21	5E	21	85
U/D 1.0E-4;	C0	08	6A	00	00	00	OE	0D	21	5E	21	85
U/D 5.0E-5;	C0	08	6A	00	00	00	26	03	20	9E	21	85
U/D 2.0E-5;	C0	08	6A	00	00	00	16	04	20	9E	21	85
U/D 1.0E-5;	C0	08	6A	00	00	00	OE	05	20	9E	21	85
U/D 5.0E-6;	C0	08	6A	00	00	00	26	C0	30	AC	21	85
U/D 2.0E-6;	C0	08	6A	00	00	00	16	C0	30	AC	21	85
U/D 1.0E-6;	C0	08	6A	00	00	00	OE	C0	30	AC	21	85
U/D 5.0E-7;	C0	08	6A	00	00	00	64	80	30	8C	21	85
U/D 2.0E-7;	C0	08	6A	00	00	00	54	40	30	8C	21	85
U/D 1.0E-7;	C0	08	6A	00	00	00	4C	00	30	8C	21	85

Table 6-3 (cont)

MODE MKRS;U/D 5.0E+0;FXD;PCT 0.0;OUT ON;MAG X1;TRIG NORM;												
SETTING	R1	V1	V2	V3	V4	V5	M1	M2	M3	M4	T1	T2
U/D 5.0E+0;	C0	08	6A	00	00	00	64	20	2B	5E	21	85
U/D 2.0E+0;	C0	08	6A	00	00	00	54	21	2B	5E	21	85
U/D 1.0E+0;	C0	08	6A	00	00	00	4C	22	2B	5E	21	85
U/D 5.0E-1;	C0	08	6A	00	00	00	64	23	29	5E	21	85
U/D 2.0E-1;	C0	08	6A	00	00	00	54	24	29	5E	21	85
U/D 1.0E-1;	C0	08	6A	00	00	00	4C	25	29	5E	21	85
U/D 5.0E-2;	C0	08	6A	00	00	00	64	10	27	5E	21	85
U/D 2.0E-2;	C0	08	6A	00	00	00	54	11	27	5E	21	85
U/D 1.0E-2;	C0	08	6A	00	00	00	4C	12	27	5E	21	85
U/D 5.0E-3;	C0	08	6A	00	00	00	64	13	25	5E	21	85
U/D 2.0E-3;	C0	08	6A	00	00	00	54	14	25	5E	21	85
U/D 1.0E-3;	C0	08	6A	00	00	00	4C	15	25	5E	21	85
U/D 5.0E-4;	C0	08	6A	00	00	00	64	08	23	5E	21	85
U/D 2.0E-4;	C0	08	6A	00	00	00	54	09	23	5E	21	85
U/D 1.0E-4;	C0	08	6A	00	00	00	4C	0A	23	5E	21	85
U/D 5.0E-5;	C0	08	6A	00	00	00	64	0B	21	5E	21	85
U/D 2.0E-5;	C0	08	6A	00	00	00	54	0C	21	5E	21	85
U/D 1.0E-5;	C0	08	6A	00	00	00	4C	0D	21	5E	21	85
U/D 5.0E-6;	C0	08	6A	00	00	00	64	03	20	9E	21	85
U/D 2.0E-6;	C0	08	6A	00	00	00	54	04	20	9E	21	85
U/D 1.0E-6;	C0	08	6A	00	00	00	4C	05	20	9E	21	85
U/D 5.0E-7;	C0	08	6A	00	00	00	64	C0	30	AC	21	85
U/D 2.0E-7;	C0	08	6A	00	00	00	54	C0	30	AC	21	85
U/D 1.0E-7;	C0	08	6A	00	00	00	4C	C0	30	AC	21	85
U/D 5.0E-8;	C0	08	6A	00	00	00	64	80	30	8C	21	85
U/D 2.0E-8;	C0	08	6A	00	00	00	54	40	30	8C	21	85
U/D 1.0E-8;	C0	08	6A	00	00	00	4C	00	30	8C	21	85

Table 6-3 (cont)

MODE MKRS;U/D 1.0E-3;FXD;PCT 0.0;OUT ON;MAG X1;TRIG NORM;

SETTING	R1	V1	V2	V3	V4	V5	M1	M2	M3	M4	T1	T2
TRIG NORM;	C0	08	6A	00	00	00	4C	15	25	5E	21	85
TRIG X1;	C0	08	6A	00	00	00	4D	15	25	5E	21	85
TRIG X.01;	C0	08	6A	00	00	00	4F	15	25	5E	21	85
TRIG OFF;	C0	08	6A	00	00	00	4B	15	25	5E	21	85

MODE MKRS;U/D 1.0E-3;VAR;PCT 0.0;OUT ON;MAG X1;TRIG NORM;

SETTING	R1	V1	V2	V3	V4	V5	M1	M2	M3	M4	T1	T2
PCT 0.0;	C0	08	6A	00	00	00	4C	15	25	5E	21	85
PCT –5.0;	C0	08	6A	00	00	00	4C	15	25	5E	24	A5
PCT –9.9;	C0	08	6A	00	00	00	4C	15	25	5E	27	B5
PCT 5.0;	C0	08	6A	00	00	00	4C	15	25	5E	1E	65
PCT 9.9;	C0	08	6A	00	00	00	4C	15	25	5E	1B	55

SLEWED EDGE MODE SETTINGS (CG 5010 only)

MODE SLWD;U/D 1.0E-7;FXD;PC5 0.0;OUT ON;MAG X1;SHFT 0;

SETTING	R1	V1	V2	V3	V4	V5	M1	M2	M3	M4	T1	T2	T3	T4	T5	T6	T7
U/D 1.0E-7;	C0	08	6A	00	00	00	4C	00	80	0A	21	8D	E8	E8	E1	E6	F4
U/D 5.0E-8;	C0	08	6A	00	00	00	4C	00	80	0A	21	8D	E8	FC	E1	F8	F4
U/D 2.0E-8;	C0	08	6A	00	00	00	4C	00	80	0A	21	8D	38	38	33	34	F5
U/D 1.0E-8;	C0	08	6A	00	00	00	4C	00	80	0A	21	8D	38	24	33	1F	F5
U/D 5.0E-9;	C0	08	6A	00	00	00	4C	00	80	0A	21	8D	38	2E	33	29	F5
U/D 2.0E-9;	C0	08	6A	00	00	00	4C	00	80	0A	21	8D	38	34	33	2F	F5
U/D 1.0E-9;	C0	08	6A	00	00	00	4C	00	80	0A	21	8D	38	36	33	31	F5
U/D 5.0E-10;	C0	08	6A	00	00	00	4C	00	80	0A	21	8D	38	37	33	32	F5
U/D 4.0E-10;	C0	08	6A	00	00	00	4C	00	80	0A	21	8D	38	37	34	33	F1

INSTRUMENT OPTIONS

Your instrument may be equipped with one or more instrument options or optional accessories. A brief description of each instrument option is given below. For further information on instrument options or accessories, see your Tektronix Catalog or contact your Tektronix Field Office. If additional options are made available for this instrument, they may be described in a Change Information insert at the back of this manual or in this section.

OPTION 01

Adds a temperature compensated 5 MHz crystal oscillator for a higher accuracy time base. Information relative to Option 01 can be found on schematic 17 and Block Diagram B, in the Specification section (Vol. 1), in the Calibration section (Vol. 2), and in the Theory of Operation (Vol. 1).

OPTION 02

Deletes the standard Pulse Head accessory. The CG 5010/CG 5011 does not operate in the FAST EDGE mode if the Pulse Head is not attached to the OUTPUT connector.

REPLACEABLE ELECTRICAL PARTS

Parts Ordering Information

Replacement parts are available from or through your local Tektronix sales and service office or field representative.

When ordering parts, include the following information in your order: part number, instrument type or number, serial number, and modification number if applicable.

If a part you have ordered has been replaced with a new or improved part, your local Tektronix service center or field representative will contact you concerning any change in part number.

Change information, if any, is located at the rear of this manual.

List of Assemblies

A list of assemblies is given at the beginning of the Electrical Parts List. The assemblies are listed in numerical order. When the complete component number of a part is known, this list will identify the assembly in which the part is located.

Cross Index-Mfr Code Number to Manufacturer

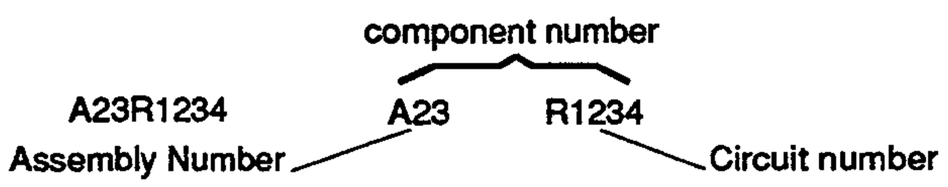
The Mfr. Code Number to Manufacturer Cross Index for the Electrical Parts List is located immediately following this format information. The Cross Index provides codes, names and addresses for the manufacturers of components listed in the Electrical Parts List.

Abbreviations

Abbreviations in this section conform to American National Standard Y1.1.

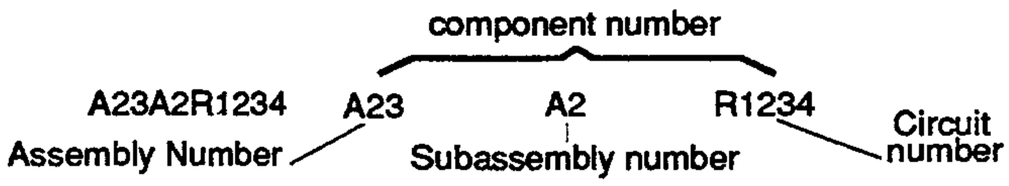
Component Number (column 1)

Example a.



Read: Resistor 1234 of Assembly 23

Example b.



Read: Resistor 1234 of Subassembly 2 of Assembly 23

The circuit component number appears on the diagrams and circuit board illustrations. Each diagram and circuit board illustration is clearly marked with the assembly number. Assembly numbers are also marked on the mechanical exploded views located in the mechanical parts list. The component number is obtained by adding the assembly number prefix to the circuit number.

The Electrical Parts List is divided and arranged by assemblies in numerical sequence (e.g., assembly A1 with its subassemblies and parts, precedes assembly A2 with its subassemblies and parts).

Chassis-mounted parts have no assembly number prefix and are located at the end of the Electrical Parts List.

Tektronix Part Number (column 2)

Indicates part number to be used when ordering replacement part from Tektronix.

Serial Number (columns 3 & 4)

Column three (3) indicates the serial number at which the part was first used. Column four (4) indicates the serial number at which the part was removed. No serial number indicates part is good for all serial numbers.

Name and Description (column 5)

In the Parts List, an Item Name is separated from the description by a colon(:). Because of space limitations, an Item Name may sometimes appear as incomplete. For further Item Name identification, the U.S. Federal Cataloging Handbook H6-1 can be utilized where possible.

Mfr. Code (column 6)

Indicates the code number of the actual manufacturer of the part. (Code to name and address cross reference can be found immediately after this page.)

Mfr. Part Number (column 7)

Indicates actual manufacturer's part number.

CROSS INDEX – MFR CODE NUMBER TO MANUFACTURER

Mfr Code	Manufacturer	Address	City, State, Zip Code
00779	AMP INC	2800 FULLING MILL	HARRISBURG PA 17105
01121	ALLEN-BRADLEY CO	1201 S 2ND ST	MILWAUKEE WI 53204-2410
01295	TEXAS INSTRUMENTS INC SEMICONDUCTOR GROUP	13500 N CENTRAL EXPY PO BOX 655012	DALLAS TX 75265
02113	COILCRAFT INC	1102 SILVER LAKE RD	CARY IL 60013-1658
03508	GENERAL ELECTRIC CO	W GENESEE ST	AUBURN NY 13021
04009	COOPER INDUSTRIES INC	103 HAWTHORN ST	HARTFORD CT 06101
04222	AVX CERAMICS DIV OF AVX CORP	19TH AVE SOUTH P O BOX 867	MYRTLE BEACH SC 29577
04426	ITW SWITCHES	6615 W IRVING PARK RD	CHICAGO IL 60634-2410
04713	MOTOROLA INC	5005 E MCDOWELL RD	PHOENIX AZ 85008-4229
05347	ULTRONIX INC	461 N 22ND ST	GRAND JUNCTION CO 81502
05574	VIKING CONNECTORS INC	21001 NORDHOFF ST	CHATSWORTH CA 91311-5911
09023	CORNELL-DUBILIER ELECTRONICS	2652 DALRYMPLE ST	SANFORD NC 27330
0B0A9	DALLAS SEMICONDUCTOR CORP	4350 BELTWOOD PKWY SOUTH	DALLAS TX 75244
0GZV8	HUBER AND SUHNER INC	500 WEST CUMMINGS PARK	WOBURN MA 01801
0J260	COMTEK MANUFACTURING OF OREGON	PO BOX 4200	BEAVERTON OR 97076-4200
0J9R5	MARCON AMERICA CORP	3 PEARL COURT	ALLENDALE NJ 07401
0JR03	ZMAN AND ASSOCIATES	7633 S 180th	KENT WA 98032
0JR04	TOSHIBA AMERICA INC	2692 DOW AVE	TUSTIN CA 92680
11236	CTS CORP	406 PARR ROAD	BERNE IN 46711-9506
11502	INTERNATIONAL RESISTIVE CO INC	GREENWAY RD	BOONE NC 28607-1860
12294	MURATA ERIE NORTH AMERICA INC	5 FRASER AVE	TRENTON ONT CAN K8V 5S1
12617	HAMLIN INC	612 EAST LAKE STREET	LAKE MILLS WI 53551
12954	MICROSEMI CORP - SCOTTSDALE	8700 E THOMAS RD	SCOTTSDALE AZ 85252
12969	UNITRODE CORP	5 FORBES RD	LEXINGTON MA 02173-7305
14674	CORNING GLASS WORKS	HOUGHTON PK	CORNING NY 14830
14936	GENERAL INSTRUMENT CORP	600 W JOHN ST	HICKSVILLE NY 11802
17856	SILICONIX INC	2201 LAURELWOOD RD	SANTA CLARA CA 95054-1516
18324	SIGNETICS CORP	4130 S MARKET COURT	SACRAMENTO CA 95834-1222
18796	MURATA ERIE NORTH AMERICAN INC	1900 W COLLEGE AVE	STATE COLLEGE PA 16801-2723
19396	ILLINOIS TOOL WORKS INC PAKTRON DIV	1205 MCCONVILLE RD PO BOX 4539	LYNCHBURG VA 24502-4535
19701	PHILIPS COMPONENTS DISCRETE PRODUCTS	PO BOX 760	MINERAL WELLS TX 76067-0760
1W344	UNITED CHEMI-CON INC	9801 W HIGGINS	ROSEMONT IL 60018-4704
21317	ELECTRONIC APPLICATIONS CO	4918 SANTA ANITA AVE	EL MONTE CA 91734
22526	DU PONT E I DE NEMOURS AND CO INC	515 FISHING CREEK RD	NEW CUMBERLAND PA 17070-3007
24355	ANALOG DEVICES INC	RT 1 INDUSTRIAL PK	NORWOOD MA 02062
24546	CORNING GLASS WORKS	550 HIGH ST	BRADFORD PA 16701-3737
25088	SIEMENS CORP	186 WOOD AVE S	ISELIN NJ 08830-2704
25403	PHILIPS COMPONENTS DISCRETE PRODUCTS	GEORGE WASHINGTON HWY	SMITHFIELD RI 02917
27014	NATIONAL SEMICONDUCTOR CORP	2900 SEMICONDUCTOR DR	SANTA CLARA CA 95051-0606
31433	KEMET ELECTRONICS CORP	PO BOX 5928	GREENVILLE SC 29606
32997	BOURNS INC	1200 COLUMBIA AVE	RIVERSIDE CA 92507-2114
33095	SPECTRUM CONTROL INC	2185 W WEIGHT ST	ERIE PA 16505
34335	ADVANCED MICRO DEVICES	901 THOMPSON PL	SUNNYVALE CA 94086-4518

CROSS INDEX – MFR CODE NUMBER TO MANUFACTURER

Mfr Code	Manufacturer	Address	City, State, Zip Code
34371	HARRIS CORP HARRIS SEMICONDUCTOR PRODUCTS GROUP	200 PALM BAY BLVD PO BOX 883	MELBOURNE FL 32919
49956	RAYTHEON CO	141 SPRING ST	LEXINGTON MA 02173-7801
50088	SGS-THOMSON MICROELECTRONICS INC	1310 ELECTRONICS DR	CARROLLTON TX 75006-6905
50140	K AND L MICROWAVE INC	408 COLES CIR	SALISBURY MD 21801-3214
50434	HEWLETT-PACKARD CO	370 W TRIMBLE RD	SAN JOSE CA 95131
51406	MURATA ERIE NORTH AMERICA INC	2200 LAKE PARK DR	SMYRNA GA 30080
52763	STETCO INC	3344 SCHIERHORN	FRANKLIN PARK IL 60131
52769	SPRAGUE-GOODMAN ELECTRONICS INC	134 FULTON AVE	GARDEN CITY PARK NY 11040-5352
53387	MINNESOTA MINING MFG CO	PO BOX 2963	AUSTIN TX 78769-2963
54583	TDK ELECTRONICS CORP	12 HARBOR PARK DR	PORT WASHINGTON NY 11550
54937	DEYOUNG MANUFACTURING INC	12920 NE 125TH WAY	KIRKLAND WA 98034-7716
55680	NICHICON /AMERICA/ CORP	927 E STATE PKY	SCHAUMBURG IL 60195-4526
56699	DALE ELECTRONICS INC	2064 12TH AVE PO BOX 609	COLUMBUS NE 68601-3632
56845	DALE ELECTRONICS INC	2300 RIVERSIDE BLVD	NORFOLK NE 68701-2242
57668	ROHM CORP	8 WHATNEY	IRVINE CA 92713
58361	QUALITY TECHNOLOGIES CORP	3400 HILLVIEW AVE	PALO ALTO CA 94304-1319
59640	SUPERTEX INC	1225 BORDEAUX DR	SUNNYVALE CA 94086
59660	TUSONIX INC	7741 N BUSINESS PARK DR	TUCSON AZ 85740-7144
60496	MICREL INC	1235 MIDAS WAY	SUNNYVALE CA 94086-4021
62104	CALIFORNIA EASTERN LABORATORIES INC	3260 JAY ST	SANTA CLARA CA 95054-3309
66891	BKC INTERNATIONAL ELECTRONIC INC	6 LAKE ST	LAWRENCE MA 01841-3011
71400	BUSSMANN DIV OF COOPER INDUSTRIES INC	114 OLD STATE RD PO BOX 14460	ST LOUIS MO 63178
71482	GENERAL INSTRUMENTS	3101 W PRATT BLVD	CHICAGO IL 60645-4125
75042	IRC ELECTRONIC COMPONENTS	401 N BROAD ST	PHILADELPHIA PA 19108-1001
75915	LITTELFUSE INC	800 E NORTHWEST HWY	DES PLAINES IL 60016-3049
76493	BELL INDUSTRIES INC JW MILLER DIV	19070 REYES AVE PO BOX 5825	COMPTON CA 90224-5825
76854	OAK SWITCH SYSTEMS INC AN OAK INDUSTRIES INC CO	100 S MAIN ST PO BOX 517	CRYSTAL LAKE IL 60014-6201
80009	TEKTRONIX INC	14150 SW KARL BRAUN DR	BEAVERTON OR 97077-0001
84411	AMERICAN SHIZUKI CORP	301 WEST O ST	OGALLALA NE 69153-1844
91637	DALE ELECTRONICS INC	2064 12TH AVE	COLUMBUS NE 68601-3632
96341	MICROWAVE ASSOCIATES INC	43 SOUTH AVE	BURLINGTON MA 01803
TK1111	SHIGMA INC (IMPORTER)	80 MARTIN LN	ELK GROVE VILLAGE IL 60007-1308
TK1312	LEMO USA INC	335 TESCONI CIR	SANTA ROSA CA 95406
TK1320	PLAINVIEW ELECTRONICS CORP	28 CAIN RD	PLAINVIEW NY 11803-4402
TK1943	NEILSEN METAL INDUSTRIES INC	3501 PORTLAND ROAD NE	SALEM OR 97303
TK1997	COLUMBIA GORGE CENTER	2940 THOMPSEN RD	HOOD RIVER OR 97031
TK2073	TOCOS AMERICA INC	565 W GULF ROAD	ARLINGTON HEIGHTS IL 60005
TK2314	Z-COMMUNICATIONS INC	5450 N W 33RD AVE	FT LAUDERDALE FL 33309

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A1	671-1320-00			CIRCUIT BD ASSY:FRONT PANEL (CG5010 & OPTION 01 ONLY)	80009	671-1320-00
A1	671-2375-00			CIRCUIT BD ASSY:FRONT PANEL (CG5011 ONLY)	80009	671-2375-00
A2	671-1321-00			CIRCUIT BD ASSY:MAIN	80009	671-1321-00
A3	671-1322-00			CIRCUIT BD ASSY:TIME INTERFACE (CG5010 & OPTION 01 ONLY)	80009	671-1322-00
A3	671-1548-00			CIRCUIT BD ASSY:TIME INTERFACE (CG5011 ONLY)	80009	671-1548-00
A3A1	671-1323-00			CIRCUIT BD ASSY:OFFSET PLL	80009	671-1323-00
A3A2	671-1324-00			CIRCUIT BD ASSY:SLEW CONTROL	80009	671-1324-00
A3A3	671-1325-00			CIRCUIT BD ASSY:VCO,50MHZ	80009	671-1325-00
A3A4	671-1326-00			CIRCUIT BD ASSY:COUNTER	80009	671-1326-00
A3A5	671-1326-00			CIRCUIT BD ASSY:COUNTER	80009	671-1326-00
A3A6	671-1327-00			CIRCUIT BD ASSY:STEERING	80009	671-1327-00
A3A7	671-1328-00			CIRCUIT BD ASSY:VCO,100MHZ	80009	671-1328-00
A3A8	671-1329-00			CIRCUIT BD ASSY:MAIN PLL	80009	671-1329-00
A3A9	671-1330-00	B010100	B010151	CIRCUIT BD ASSY:ADVANCED TIMING	80009	671-1330-00
A3A9	671-1330-01	B010152	B010164	CIRCUIT BD ASSY:ADVANCED TIMING,	80009	671-1330-01
A3A9	671-1330-02	B010165	B010668	CIRCUIT BD ASSY:ADVANCED TIMING	80009	671-1330-02
A3A9	671-1330-03	B010669		CIRCUIT BD ASSY:ADVANCED TIMING (CG5011 ONLY)	80009	671-1330-03
A4	671-1331-00	B010100	B010209	CIRCUIT BD ASSY:TIME MARK	80009	671-1331-00
A4	671-1331-01	B010210		CIRCUIT BD ASSY:TIME MARK (CG5010 ONLY)	80009	671-1331-01
A4	671-1332-00	B010100	B010209	CIRCUIT BD ASSY:TIME MARK	80009	671-1332-00
A4	671-1332-01	B010210		CIRCUIT BD ASSY:TIME MARK (CG5010 OPTION 01 ONLY)	80009	671-1332-01
A4	671-2376-00	B010100	B010329	CIRCUIT BD ASSY:TIME MARK	80009	671-2376-00
A4	671-2376-01	B010330	B011100	CIRCUIT BD ASSY:TIME MARK (CG5011 ONLY)	80009	671-2376-01
A4	671-2377-00	B010100	B010329	CIRCUIT BD ASSY:TIME MARK	80009	671-2377-00
A4	671-2377-01	B010330	B011298	CIRCUIT BD ASSY:TIME MARK	80009	671-2377-01
A4	671-2377-02	B011299		CIRCUIT BD ASSY:TIME MARK (CG5011 ONLY)	80009	671-2377-02
A5	671-1333-00			CIRCUIT BD ASSY:PS MAIN	80009	671-1333-00
A5A1	671-1334-00			CIRCUIT BD ASSY:PS ISOLATION	80009	671-1334-00
A5A2	671-1335-00			CIRCUIT BD ASSY:PS INTERFACE	80009	671-1335-00
A6	671-1336-00	B010100	B010168	CIRCUIT BD ASSY:REFERENCE	80009	671-1336-00
A6	671-1336-01	B010169		CKT BD SUBASSY:REFERENCE (CG5010 & OPTION 01 ONLY)	80009	671-1336-01
A6	671-1336-00	B010100	B010187	CIRCUIT BD ASSY:REFERENCE	80009	671-1336-00
A6	671-1336-01	B010188		CKT BD SUBASSY:REFERENCE (CG5011 ONLY)	80009	671-1336-01
A7	671-1337-00	B010100	B010207	CIRCUIT BD ASSY:OUTPUT	80009	671-1337-00
A7	671-1337-01	B010208	B010215	CIRCUIT BD ASSY:OUTPUT	80009	671-1337-01
A7	671-1337-02	B010216		CIRCUIT BD ASSY:OUTPUT (CG5010 & OPTION 01 ONLY)	80009	671-1337-02
A7	671-1337-00	B010100	B010399	CIRCUIT BD ASSY:OUTPUT	80009	671-1337-00
A7	671-1337-01	B010400	B010961	CIRCUIT BD ASSY:OUTPUT	80009	671-1337-01
A7	671-1337-02	B010962		CIRCUIT BD ASSY:OUTPUT (CG5011 ONLY)	80009	671-1337-02
A8	671-1338-00			CIRCUIT BD ASSY:HIGH EDGE	80009	671-1338-00
A8A1	671-1339-00			CIRCUIT BD ASSY:GPIB INTERFACE	80009	671-1339-00

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A9	671-1344-00	B010100	B010209	CIRCUIT BD ASSY:CPU	80009	671-1344-00
A9	671-1344-01	B010210		CIRCUIT BD ASSY:CPU (CG5010 & OPTION 01 ONLY)	80009	671-1344-01
A9	671-2378-00	B010100	B010532	CIRCUIT BD ASSY:CPU	80009	671-2378-00
A9	671-2378-01	B010533	B010963	CIRCUIT BD ASSY:CPU	80009	671-2378-01
A9	671-2378-02	B010964		CIRCUIT BD ASSY:CPU (CG5011 ONLY)	80009	671-2378-02
A1	671-1320-00			CIRCUIT BD ASSY:FRONT PANEL (CG5010 & OPTION 01 ONLY)	80009	671-1320-00
A1	671-2375-00			CIRCUIT BD ASSY:FRONT PANEL (CG5011 ONLY)	80009	671-2375-00
A1C1121	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A1C1122	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A1C1123	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A1C1124	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A1C1221	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A1C1530	281-0814-00			CAP,FXD,CER DI:100 PF,10%,100V	04222	SA102A101KAA
A1DS1001	150-1235-00			DISPLAY,OPTO:,LED;HI-EFFIC RED,635NM,360MCD	50434	HDSP-7503
A1DS1002	150-1235-00			DISPLAY,OPTO:,LED;HI-EFFIC RED,635NM,360MCD	50434	HDSP-7503
A1DS1101	150-1114-00			DISPLAY,OPTO:,LED;RED,655NM,4 DIGIT,16 SEG	50434	QDSP-6551
A1DS1201	150-1138-00			DIODE,OPTO:,LED;RED,626NM,1MCD AT 20MA	50434	HLMP-0300
A1DS1202	150-1235-00			DISPLAY,OPTO:,LED;HI-EFFIC RED,635NM,360MCD	50434	HDSP-7503
A1DS1203	150-1235-00			DISPLAY,OPTO:,LED;HI-EFFIC RED,635NM,360MCD	50434	HDSP-7503
A1DS1301	150-1138-00			DIODE,OPTO:,LED;RED,626NM,1MCD AT 20MA	50434	HLMP-0300
A1DS1302	150-1138-00			DIODE,OPTO:,LED;RED,626NM,1MCD AT 20MA	50434	HLMP-0300
A1DS1401	150-1235-00			DISPLAY,OPTO:,LED;HI-EFFIC RED,635NM,360MCD	50434	HDSP-7503
A1DS1402	150-1235-00			DISPLAY,OPTO:,LED;HI-EFFIC RED,635NM,360MCD	50434	HDSP-7503
A1DS1403	150-1138-00			DIODE,OPTO:,LED;RED,626NM,1MCD AT 20MA	50434	HLMP-0300
A1DS1420	150-1109-00			DIODE,OPTO:,LED;GRN,565NM,1.5MCD AT 20MA	50434	QLMP-0549
A1DS1421	150-1109-00			DIODE,OPTO:,LED;GRN,565NM,1.5MCD AT 20MA	50434	QLMP-0549
A1DS1422	150-1109-00			DIODE,OPTO:,LED;GRN,565NM,1.5MCD AT 20MA	50434	QLMP-0549
A1DS1423	150-1109-00			DIODE,OPTO:,LED;GRN,565NM,1.5MCD AT 20MA	50434	QLMP-0549
A1DS1424	150-1109-00			DIODE,OPTO:,LED;GRN,565NM,1.5MCD AT 20MA	50434	QLMP-0549
A1DS1425	150-1109-00			DIODE,OPTO:,LED;GRN,565NM,1.5MCD AT 20MA	50434	QLMP-0549
A1DS1431	150-1109-00			DIODE,OPTO:,LED;GRN,565NM,1.5MCD AT 20MA	50434	QLMP-0549
A1DS1432	150-1109-00			DIODE,OPTO:,LED;GRN,565NM,1.5MCD AT 20MA	50434	QLMP-0549
A1DS1501	150-1114-00			DISPLAY,OPTO:,LED;RED,655NM,4 DIGIT,16 SEG	50434	QDSP-6551
A1DS1601	150-1138-00			DIODE,OPTO:,LED;RED,626NM,1MCD AT 20MA	50434	HLMP-0300
A1DS1701	150-1138-00			DIODE,OPTO:,LED;RED,626NM,1MCD AT 20MA	50434	HLMP-0300
A1DS1702	150-1138-00			DIODE,OPTO:,LED;RED,626NM,1MCD AT 20MA	50434	HLMP-0300
A1DS1703	150-1138-00			DIODE,OPTO:,LED;RED,626NM,1MCD AT 20MA	50434	HLMP-0300
A1J1330	131-1426-00			CONN,HDR:PCB,;MALE,RTANG,1 X 36,0.1 CTR	22526	65524-136
A1J1431	131-1003-00			CONN,RF JACK:PCB,PELTOLA;FEMALE,STR,0.141	80009	131-1003-00
A1J1435	131-1426-00			CONN,HDR:PCB,;MALE,RTANG,1 X 36,0.1 CTR	22526	65524-136
A1J1521	131-4864-00			CONN,BOX::PCB,;FEMALE,STR,2 X 25,0.1 CTR	53387	929852-01-25-10
A1J1630	131-1426-00			CONN,HDR:PCB,;MALE,RTANG,1 X 36,0.1 CTR	22526	65524-136
A1L1730	108-0328-00			COIL,RF:FIXED,275UH	0JR03	108-0328-00
A1R1121	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A1R1122	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A1R1123	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A1R1124	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A1R1125	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A1R1126	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A1R1127	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A1R1128	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A1R1301	313-1300-00			RES,FXD,FILM:30 OHM,5%,0.2W	91637	CCF5030R00J
A1R1302	313-1300-00			RES,FXD,FILM:30 OHM,5%,0.2W	91637	CCF5030R00J
A1R1303	313-1300-00			RES,FXD,FILM:30 OHM,5%,0.2W	91637	CCF5030R00J
A1R1311	313-1300-00			RES,FXD,FILM:30 OHM,5%,0.2W	91637	CCF5030R00J
A1R1312	313-1300-00			RES,FXD,FILM:30 OHM,5%,0.2W	91637	CCF5030R00J
A1R1313	313-1300-00			RES,FXD,FILM:30 OHM,5%,0.2W	91637	CCF5030R00J
A1R1331	323-0097-00			RES,FXD,FILM:100 OHM,1%,0.5W,TC=T0	91637	CMF65116G100R0F
A1R1332	323-0097-00			RES,FXD,FILM:100 OHM,1%,0.5W,TC=T0	91637	CMF65116G100R0F
A1R1601	313-1300-00			RES,FXD,FILM:30 OHM,5%,0.2W	91637	CCF5030R00J
A1R1602	313-1300-00			RES,FXD,FILM:30 OHM,5%,0.2W	91637	CCF5030R00J
A1R1603	313-1300-00			RES,FXD,FILM:30 OHM,5%,0.2W	91637	CCF5030R00J
A1R1604	313-1300-00			RES,FXD,FILM:30 OHM,5%,0.2W	91637	CCF5030R00J
A1R1605	313-1300-00			RES,FXD,FILM:30 OHM,5%,0.2W	91637	CCF5030R00J
A1R1611	313-1300-00			RES,FXD,FILM:30 OHM,5%,0.2W	91637	CCF5030R00J
A1R1612	313-1300-00			RES,FXD,FILM:30 OHM,5%,0.2W	91637	CCF5030R00J
A1R1613	313-1300-00			RES,FXD,FILM:30 OHM,5%,0.2W	91637	CCF5030R00J
A1R1614	313-1300-00			RES,FXD,FILM:30 OHM,5%,0.2W	91637	CCF5030R00J
A1R1615	313-1300-00			RES,FXD,FILM:30 OHM,5%,0.2W	91637	CCF5030R00J
A1R1621	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A1R1622	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A1R1623	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A1R1624	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A1R1721	313-1361-00			RES,FXD,FILM:360 OHM,5%,0.2W	91637	CCF50-2-360R0J
A1R1722	313-1361-00			RES,FXD,FILM:360 OHM,5%,0.2W	91637	CCF50-2-360R0J
A1S1011	260-2503-00			SWITCH,PUSH:SPST,SUBMINATURE,W/LED,RED	TK1111	TR2-21-L2
A1S1101	260-2503-00			SWITCH,PUSH:SPST,SUBMINATURE,W/LED,RED	TK1111	TR2-21-L2
A1S1121	260-2500-00			SWITCH,ROTARY:FRONT PANEL,CG5010	76854	70098 LCE-28-2
A1S1322	260-2503-00			SWITCH,PUSH:SPST,SUBMINATURE,W/LED,RED	TK1111	TR2-21-L2
A1S1324	260-2503-00			SWITCH,PUSH:SPST,SUBMINATURE,W/LED,RED	TK1111	TR2-21-L2
A1S1326	260-2503-00			SWITCH,PUSH:SPST,SUBMINATURE,W/LED,RED	TK1111	TR2-21-L2
A1S1331	260-2504-00			SWITCH,PUSH:SPST,SUBMINATURE,W/O LED	TK1111	TR1-01
A1S1332	260-2503-00			SWITCH,PUSH:SPST,SUBMINATURE,W/LED,RED	TK1111	TR2-21-L2
A1S1412	260-2503-00			SWITCH,PUSH:SPST,SUBMINATURE,W/LED,RED	TK1111	TR2-21-L2
A1S1413	260-2504-00			SWITCH,PUSH:SPST,SUBMINATURE,W/O LED	TK1111	TR1-01
A1S1414	260-2503-00			SWITCH,PUSH:SPST,SUBMINATURE,W/LED,RED	TK1111	TR2-21-L2
A1S1421	260-2504-00			SWITCH,PUSH:SPST,SUBMINATURE,W/O LED	TK1111	TR1-01
A1S1422	260-2503-00			SWITCH,PUSH:SPST,SUBMINATURE,W/LED,RED (CG5010 & OPTION 01 ONLY)	TK1111	TR2-21-L2
A1S1423	260-2504-00			SWITCH,PUSH:SPST,SUBMINATURE,W/O LED	TK1111	TR1-01
A1S1424	260-2503-00			SWITCH,PUSH:SPST,SUBMINATURE,W/LED,RED	TK1111	TR2-21-L2
A1S1425	260-2503-00			SWITCH,PUSH:SPST,SUBMINATURE,W/LED,RED	TK1111	TR2-21-L2
A1S1431	260-2503-00			SWITCH,PUSH:SPST,SUBMINATURE,W/LED,RED	TK1111	TR2-21-L2
A1S1432	260-2503-00			SWITCH,PUSH:SPST,SUBMINATURE,W/LED,RED	TK1111	TR2-21-L2
A1S1511	260-2504-00			SWITCH,PUSH:SPST,SUBMINATURE,W/O LED (CG5010 & OPTION 01 ONLY)	TK1111	TR1-01
A1S1521	260-2503-00			SWITCH,PUSH:SPST,SUBMINATURE,W/LED,RED	TK1111	TR2-21-L2
A1S1522	260-2503-00			SWITCH,PUSH:SPST,SUBMINATURE,W/LED,RED	TK1111	TR2-21-L2
A1S1523	260-2503-00			SWITCH,PUSH:SPST,SUBMINATURE,W/LED,RED	TK1111	TR2-21-L2
A1S1531	260-2504-00			SWITCH,PUSH:SPST,SUBMINATURE,W/O LED	TK1111	TR1-01
A1S1611	260-2503-00			SWITCH,PUSH:SPST,SUBMINATURE,W/LED,RED (CG5010 & OPTION 01 ONLY)	TK1111	TR2-21-L2
A1S1612	260-2503-00			SWITCH,PUSH:SPST,SUBMINATURE,W/LED,RED (CG5010 & OPTION 01 ONLY)	TK1111	TR2-21-L2

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A1S1621	260-2504-00			SWITCH,PUSH:SPST,SUBMINATURE,W/O LED	TK1111	TR1-01
A1S1721	260-2504-00			SWITCH,PUSH:SPST,SUBMINATURE,W/O LED	TK1111	TR1-01
A1T1630	120-0459-00			XFMR,TOROID:	0JR03	120-0459-00
A1U1221	156-1235-00			IC,DIGITAL:LSTTL,DEMUX/DECODER	01295	SN74LS145N
A2	671-1321-00			CIRCUIT BD ASSY:MAIN	80009	671-1321-00
A2C1241	290-0974-00			CAP,FXD,ELCTLT:10UF,20%,50VDC	55680	UVX1H100MAA
A2C1541	281-0775-01			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A2C1612	290-0974-00			CAP,FXD,ELCTLT:10UF,20%,50VDC	55680	UVX1H100MAA
A2C1621	281-0775-01			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A2C1631	281-0775-01			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A2C1632	281-0775-01			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A2C1711	281-0775-01			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A2C1741	281-0775-01			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A2J1011	131-2063-00			CONN,EDGECARD::PCB,;FEMALE;FEMALE,STR,2 X	05574	000201-4986
A2J1111	131-2063-00			CONN,EDGECARD::PCB,;FEMALE;FEMALE,STR,2 X	05574	000201-4986
A2J1200	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025 (QUANTITY OF 50)	22526	47359-000
A2J1411	131-2063-00			CONN,EDGECARD::PCB,;FEMALE;FEMALE,STR,2 X	05574	000201-4986
A2J1412	131-2063-00			CONN,EDGECARD::PCB,;FEMALE;FEMALE,STR,2 X	05574	000201-4986
A2J1511	131-2063-00			CONN,EDGECARD::PCB,;FEMALE;FEMALE,STR,2 X	05574	000201-4986
A2J1611	131-2063-00			CONN,EDGECARD::PCB,;FEMALE;FEMALE,STR,2 X	05574	000201-4986
A2J1701	131-2063-00			CONN,EDGECARD::PCB,;FEMALE;FEMALE,STR,2 X	05574	000201-4986
A2J1721	131-2063-00			CONN,EDGECARD::PCB,;FEMALE;FEMALE,STR,2 X	05574	000201-4986
A2L1711	108-0329-00			COIL,RF:FIXED,2.4UH	0JR03	108-0329-00
A2Q1031	151-0334-00			TRANSISTOR:NPN,SI,TO-126	04713	2N4923
A2Q1032	151-0334-00			TRANSISTOR:NPN,SI,TO-126	04713	2N4923
A2Q1131	151-0334-00			TRANSISTOR:NPN,SI,TO-126	04713	2N4923
A2Q1132	151-0334-00			TRANSISTOR:NPN,SI,TO-126	04713	2N4923
A2Q1133	151-0334-00			TRANSISTOR:NPN,SI,TO-126	04713	2N4923
A2Q1141	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A2Q1142	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A2Q1321	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A2Q1322	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A2Q1323	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A2Q1324	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A2Q1325	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A2Q1326	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A2Q1327	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A2Q1328	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A2Q1331	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A2Q1332	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A2Q1333	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A2Q1334	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A2Q1335	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A2Q1336	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A2Q1421	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A2Q1422	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A2Q1423	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A2Q1424	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A2Q1431	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A2Q1432	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A2Q1433	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A2R1131	313-1750-00			RES,FXD,FILM:75 OHM,5%,0.2W	91637	CCF50-2-75R00J
A2R1132	313-1750-00			RES,FXD,FILM:75 OHM,5%,0.2W	91637	CCF50-2-75R00J
A2R1133	313-1750-00			RES,FXD,FILM:75 OHM,5%,0.2W	91637	CCF50-2-75R00J
A2R1134	313-1750-00			RES,FXD,FILM:75 OHM,5%,0.2W	91637	CCF50-2-75R00J
A2R1135	313-1750-00			RES,FXD,FILM:75 OHM,5%,0.2W	91637	CCF50-2-75R00J
A2R1141	322-3239-00			RES,FXD,FILM:3.01K OHM,1%,0.2W,TC=T0	91637	CCF501G30100F
A2R1142	313-1752-00			RES,FXD,FILM:7.5K OHM,5%,0.2W	91637	CCF50-2-75000J
A2R1211	313-1200-00			RES,FXD,FILM:20 OHM,5%,0.2W	91637	CCF50-2-20R00J
A2R1221	313-1200-00			RES,FXD,FILM:20 OHM,5%,0.2W	91637	CCF50-2-20R00J
A2R1222	313-1200-00			RES,FXD,FILM:20 OHM,5%,0.2W	91637	CCF50-2-20R00J
A2R1223	313-1200-00			RES,FXD,FILM:20 OHM,5%,0.2W	91637	CCF50-2-20R00J
A2R1224	313-1200-00			RES,FXD,FILM:20 OHM,5%,0.2W	91637	CCF50-2-20R00J
A2R1225	313-1200-00			RES,FXD,FILM:20 OHM,5%,0.2W	91637	CCF50-2-20R00J
A2R1226	313-1200-00			RES,FXD,FILM:20 OHM,5%,0.2W	91637	CCF50-2-20R00J
A2R1227	313-1200-00			RES,FXD,FILM:20 OHM,5%,0.2W	91637	CCF50-2-20R00J
A2R1228	313-1200-00			RES,FXD,FILM:20 OHM,5%,0.2W	91637	CCF50-2-20R00J
A2R1229	313-1200-00			RES,FXD,FILM:20 OHM,5%,0.2W	91637	CCF50-2-20R00J
A2R1231	313-1200-00			RES,FXD,FILM:20 OHM,5%,0.2W	91637	CCF50-2-20R00J
A2R1232	313-1200-00			RES,FXD,FILM:20 OHM,5%,0.2W	91637	CCF50-2-20R00J
A2R1233	313-1200-00			RES,FXD,FILM:20 OHM,5%,0.2W	91637	CCF50-2-20R00J
A2R1234	313-1200-00			RES,FXD,FILM:20 OHM,5%,0.2W	91637	CCF50-2-20R00J
A2R1235	313-1200-00			RES,FXD,FILM:20 OHM,5%,0.2W	91637	CCF50-2-20R00J
A2R1236	313-1200-00			RES,FXD,FILM:20 OHM,5%,0.2W	91637	CCF50-2-20R00J
A2R1241	322-3235-00			RES,FXD,FILM:2.74K OHM,1%,0.2W,TC=T0	91637	CCF501G27400F
A2R1541	313-1104-00			RES,FXD,FILM:100K OHM,5%,0.2W	91637	CCF50-2-10002J
A2R1542	313-1104-00			RES,FXD,FILM:100K OHM,5%,0.2W	91637	CCF50-2-10002J
A2R1543	313-1104-00			RES,FXD,FILM:100K OHM,5%,0.2W	91637	CCF50-2-10002J
A2R1544	313-1104-00			RES,FXD,FILM:100K OHM,5%,0.2W	91637	CCF50-2-10002J
A2R1719	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=T0	91637	CCF501G10R00F
A2R1721	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0	56845	CCF50-2-G4751FT
A2R1741	322-3226-00			RES,FXD,FILM:2.21K OHM,1%,0.2W,TC=T0	91637	CCF501G22100F
A2TP1630	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,:MALE,STR,0.025	22526	48283-036
A2TP1632	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,:MALE,STR,0.025	22526	48283-036
A2TP1636	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,:MALE,STR,0.025	22526	48283-036
A2TP1638	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,:MALE,STR,0.025	22526	48283-036
A2U1341	156-1245-00			IC,LINEAR:BIPOLAR,TRANSISTOR ARRAY;7,NPN	04713	MC1413P
A2U1421	307-0368-00			RES NTWK,FXD,FI:7,500 & 250 OHM,5%,0.025W	91637	MDP16-00S148
A2U1422	307-0368-00			RES NTWK,FXD,FI:7,500 & 250 OHM,5%,0.025W	91637	MDP16-00S148
A2U1431	307-0368-00			RES NTWK,FXD,FI:7,500 & 250 OHM,5%,0.025W	91637	MDP16-00S148
A2U1432	156-0469-00			IC,DIGITAL:LSTTL,DEMUX/DECODER;3-TO-8	01295	SN74LS138 (N OR J)
A2U1441	156-0874-00			IC,DIGITAL:LSTTL,LATCH;8-BIT ADDRESSABLE	04713	SN74LS259N
A2U1521	156-0599-00			IC,MEMORY:LSTTL,SRAM;16 X 4,80NS;,DIP16.3	34335	AM27LS03PC
A2U1522	156-0599-00			IC,MEMORY:LSTTL,SRAM;16 X 4,80NS;,DIP16.3	34335	AM27LS03PC
A2U1531	156-0599-00			IC,MEMORY:LSTTL,SRAM;16 X 4,80NS;,DIP16.3	34335	AM27LS03PC
A2U1532	156-0599-00			IC,MEMORY:LSTTL,SRAM;16 X 4,80NS;,DIP16.3	34335	AM27LS03PC
A2U1621	156-0720-00			IC,DIGITAL:LSTTL,GATES;HEX INV, BUS DRIVER	01295	SN74LS368AN
A2U1631	156-0629-00			IC,DIGITAL:LSTTL,COUNTER;30-MHZ PRESETTABLE	04713	SN74LS197(N OR J)
A2U1641	156-0876-00			IC,DIGITAL:CMOS,GATE;SCHMITT TRIG, HEX INV	27014	MM74C14N
A3	671-1322-00			CIRCUIT BD ASSY:TIME INTERFACE389-0562-XX (CG5010 & OPTION 01 ONLY)	80009	671-1322-00
A3	671-1548-00			CIRCUIT BD ASSY:TIME INTERFACE (CG5011 ONLY)	80009	671-1548-00
A3J1007	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,:MALE,STR,0.025 (CG5010 & OPTION 01 ONLY)	22526	47359-000

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A3J1010	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025 (CG5011 ONLY)	22526	47359-000
A3J1020	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A3J1021	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A3J1027	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A3J1031	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A3J1100	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A3J1106	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A3J1126	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A3J1200	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A3J1204	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A3J1207	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A3J1217	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A3J1220	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A3J1222	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A3J1225	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025 (CG5010 & OPTION 01 ONLY)	22526	47359-000
A3J1230	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A3J1300	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025 (CG5010 & OPTION 01 ONLY)	22526	47359-000
A3J1310	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025 (CG5010 & OPTION 01 ONLY)	22526	47359-000
A3J1315	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A3J1320	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025 (CG5010 & OPTION 01 ONLY)	22526	47359-000
A3J1324	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A3J1403	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025 (CG5010 & OPTION 01 ONLY)	22526	47359-000
A3J1420	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025 (CG5010 & OPTION 01 ONLY)	22526	47359-000
A3J1424	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025 (CG5010 & OPTION 01 ONLY)	22526	47359-000
A3J1427	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A3J1434	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A3J1500	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025 (CG5010 & OPTION 01 ONLY)	22526	47359-000
A3J1502	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A3J1510	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025 (CG5010 & OPTION 01 ONLY)	22526	47359-000
A3J1521	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025 (CG5010 & OPTION 01 ONLY)	22526	47359-000
A3J1533	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A3J1603	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A3J1615	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025 (CG5010 & OPTION 01 ONLY)	22526	47359-000
A3J1620	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A3A1	671-1323-00			CIRCUIT BD ASSY:OFFSET PLL	80009	671-1323-00
A3A1C1005	283-0359-00			CAP,FXD,CER DI:1000PF,10%,200V	04222	SR212A102KAA
A3A1C1016	283-0108-00			CAP,FXD,CER DI:220PF,10%,200V	04222	SR152A221KAA
A3A1C1020	283-0204-00			CAP,FXD,CER DI:0.01UF,20%,50V	04222	SR155E103MAA
A3A1C1030	283-0024-00			CAP,FXD,CER DI:0.1UF,+80-20%,50V	04222	SR215C104MAA
A3A1C1031	283-0204-00			CAP,FXD,CER DI:0.01UF,20%,50V	04222	SR155E103MAA
A3A1C1032	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A1C1033	283-0000-00			CAP,FXD,CER DI:0.001UF,+100-0%,500V	51406	DD06450Y5U102P500V
A3A1C1034	283-0032-00			CAP,FXD,CER DI:470PF,5%,500V	59660	831 621 Z5E0 471 J
A3A1C1040	283-0204-00			CAP,FXD,CER DI:0.01UF,20%,50V	04222	SR155E103MAA
A3A1C1042	283-0341-00			CAP,FXD,CER DI:0.047UF,10%,100V	04222	SR211C473KAA

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A3A1C1100	283-0204-00			CAP,FXD,CER DI:0.01UF,20%,50V	04222	SR155E103MAA
A3A1C1102	283-0330-00			CAP,FXD,CER DI:100PF,5%,50V	18796	RPE121151C0G101J050V
A3A1C1104	283-0330-00			CAP,FXD,CER DI:100PF,5%,50V	18796	RPE121151C0G101J050V
A3A1C1110	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A1C1124	283-0010-00			CAP,FXD,CER DI:0.05UF,+80-20%,50V	04222	SR305E503ZAA
A3A1C1126	290-0534-00			CAP,FXD,ELCTLT:1UF,20%,35V	31433	T355A105M035AS
A3A1C1130	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A1C1132	283-0032-00			CAP,FXD,CER DI:470PF,5%,500V	59660	831 621 Z5E0 471 J
A3A1C1200	283-0204-00			CAP,FXD,CER DI:0.01UF,20%,50V	04222	SR155E103MAA
A3A1C1201	283-0204-00			CAP,FXD,CER DI:0.01UF,20%,50V	04222	SR155E103MAA
A3A1C1210	283-0204-00			CAP,FXD,CER DI:0.01UF,20%,50V	04222	SR155E103MAA
A3A1C1211	283-0204-00			CAP,FXD,CER DI:0.01UF,20%,50V	04222	SR155E103MAA
A3A1C1242	283-0203-00			CAP,FXD,CER DI:0.47UF,20%,50V	04222	SR305C474MAA
A3A1C1244	290-0523-00			CAP,FXD,ELCTLT:2.2UF,20%,20V	31433	T355A225M020AS
A3A1CR1010	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A1CR1012	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A1CR1020	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A1CR1022	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A1CR1030	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A1CR1110	152-0536-00			DIODE,SIG:SCHTKY,;4V,0.6VF,1.0PF;MBD101	04713	MBD101
A3A1CR1118	152-0536-00			DIODE,SIG:SCHTKY,;4V,0.6VF,1.0PF;MBD101	04713	MBD101
A3A1CR1122	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A1CR1140	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A1CR1240	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A1DS1142	150-1043-00			DIODE,OPTO:,LED;RED,635NM,1.5MCD @ IF=20MA	58361	MV5774C
A3A1L1020	108-0249-00			CHOKE,RF:FIXED,12UF	0JR03	108-0249-00
A3A1L1210	108-0226-00			COIL,RF:FIXED,100UH	76493	B4257
A3A1L1212	108-0226-00			COIL,RF:FIXED,100UH	76493	B4257
A3A1P1500	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 2)	22526	75377-001
A3A1P1510	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 5)	22526	75377-001
A3A1P1521	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 7)	22526	75377-001
A3A1P1615	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 2)	22526	75377-001
A3A1Q1020	151-0254-00			TRANSISTOR,SIG:BIPOLAR,NPN;30V,500MA,125MHZ	04713	MPSA14
A3A1Q1030	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A3A1Q1110	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A3A1Q1112	151-0441-00			TRANSISTOR,SIG:BIPOLAR,NPN;15V,40MA,1.0GHZ	04713	2N3839
A3A1Q1114	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A3A1Q1116	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A3A1Q1118	151-0441-00			TRANSISTOR,SIG:BIPOLAR,NPN;15V,40MA,1.0GHZ	04713	2N3839
A3A1R1005	315-0181-00			RES,FXD,FILM:180 OHM,5%,0.25W	57668	NTR25J-E180E
A3A1R1008	315-0121-00			RES,FXD,FILM:120 OHM,5%,0.25W	19701	5043CX120R0J
A3A1R1010	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A3A1R1012	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A3A1R1014	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A1R1016	315-0132-00			RES,FXD,FILM:1.3K OHM,5%,0.25W	57668	NTR25J-E01K3
A3A1R1020	315-0361-00			RES,FXD,FILM:360 OHM,5%,0.25W	19701	5043CX360R0J
A3A1R1030	315-0474-00			RES,FXD,FILM:470K OHM,5%,0.25W	19701	5043CX470K0J92U
A3A1R1031	315-0202-00			RES,FXD,FILM:2K OHM,5%,0.25W	57668	NTR25J-E 2K
A3A1R1032	315-0152-00			RES,FXD,FILM:1.5K OHM,5%,0.25W	57668	NTR25J-E01K5
A3A1R1034	315-0152-00			RES,FXD,FILM:1.5K OHM,5%,0.25W	57668	NTR25J-E01K5
A3A1R1040	315-0152-00			RES,FXD,FILM:1.5K OHM,5%,0.25W	57668	NTR25J-E01K5

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A3A1R1042	315-0271-00			RES,FXD,FILM:270 OHM,5%,0.25W	57668	NTR25J-E270E
A3A1R1100	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A3A1R1114	315-0331-00			RES,FXD,FILM:330 OHM,5%,0.25W	57668	NTR25J-E330E
A3A1R1116	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W	57668	NTR25J-E470E
A3A1R1118	315-0151-00			RES,FXD,FILM:150 OHM,5%,0.25W	57668	NTR25J-E150E
A3A1R1120	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A1R1122	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A1R1124	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A1R1126	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W	57668	NTR25J-E470E
A3A1R1130	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A1R1132	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A1R1134	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A1R1140	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A1R1142	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A1R1144	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A1R1146	315-0222-00			RES,FXD,FILM:2.2K OHM,5%,0.25W	57668	NTR25J-E02K2
A3A1R1148	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A1R1210	315-0132-00			RES,FXD,FILM:1.3K OHM,5%,0.25W	57668	NTR25J-E01K3
A3A1R1212	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W	19701	5043CX51R00J
A3A1R1213	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W	19701	5043CX51R00J
A3A1R1220	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W	57668	NTR25J-E470E
A3A1R1240	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A1R1242	315-0222-00			RES,FXD,FILM:2.2K OHM,5%,0.25W	57668	NTR25J-E02K2
A3A1T1200	120-0487-00			XFMR,TOROID:	0JR03	120-0487-00
A3A1TP1100	214-0579-00			TERM,TEST POINT:BRS CD PL	0J260	ORDER BY DESCRIPTION
A3A1TP1140	214-0579-00			TERM,TEST POINT:BRS CD PL	0J260	ORDER BY DESCRIPTION
A3A1TP1210	214-0579-00			TERM,TEST POINT:BRS CD PL	0J260	ORDER BY DESCRIPTION
A3A1TP1220	214-0579-00			TERM,TEST POINT:BRS CD PL	0J260	ORDER BY DESCRIPTION
A3A1U1000	156-0870-00			IC,DIGITAL:ECL,COUNTER;DECADE UP, WITH	27014	F10010DC
A3A1U1002	156-0870-00			IC,DIGITAL:ECL,COUNTER;DECADE UP, WITH	27014	F10010DC
A3A1U1030	156-0158-00			IC,LINEAR:BIPOLAR,OP-AMP;DUAL;MC1458P1	04713	MC1458P1
A3A1U1100	156-0517-00			MICROCKT,DGTL:DOUBLY BAL MIXER	01295	TL442CN
A3A1U1130	156-0382-00			IC,DIGITAL:LSTTL,GATE;QUAD 2-INPUT NAND	01295	SN74LS00N
A3A1U1220	156-0387-00			IC,DIGITAL:LSTTL,FLIP FLOP;DUAL J-K, PRESET	01295	SN74LS73AN
A3A1U1230	156-0382-00			IC,DIGITAL:LSTTL,GATE;QUAD 2-INPUT NAND	01295	SN74LS00N
A3A1VR1200	152-0278-00			DIODE,ZENER:,;3V,5%,0.4W;1N4372A,DO-35	04713	1N4372ARL
A3A2	671-1324-00			CIRCUIT BD ASSY:SLEW CONTROL	80009	671-1324-00
A3A2C1103	281-0613-00			CAP,FXD,CER DI:10PF,1%,500V	52763	ORDER BY DESCRIPTION
A3A2C1110	283-0024-00			CAP,FXD,CER DI:0.1UF,+80-20%,50V	04222	SR215C104MAA
A3A2C1114	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A2C1119	283-0154-00			CAP,FXD,CER DI:22PF,5%,50V	04222	SR155A220JAA
A3A2CR1001	152-0951-00			DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35	50088	1N6263
A3A2CR1102	152-0951-00			DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35	50088	1N6263
A3A2CR1111	152-0951-00			DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35	50088	1N6263
A3A2CR1112	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A2CR1113	152-0951-00			DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35	50088	1N6263
A3A2P1300	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 7)	22526	75377-001
A3A2P1310	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 5)	22526	75377-001
A3A2P1403	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 4)	22526	75377-001

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A3A201103	151-0192-00			TRANSISTOR,SIG:BIPOLAR,NPN;25V,100MA,200MHZ	04713	SPS8801
A3A201112	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A3A201113	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A3A201114	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A3A2R1010	307-0526-00			RES NTWK,FXD,FI:5,510 OHM,10%,0.125 W	91637	CSC06A01-511J-D03
A3A2R1101	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A2R1102	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A2R1103	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A2R1110	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W	57668	NTR25J-E04K7
A3A2R1111	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W	57668	NTR25J-E04K7
A3A2R1112	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A2R1113	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W	57668	NTR25J-E04K7
A3A2R1114	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A2R1115	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W	57668	NTR25J-E04K7
A3A2U1001	156-0796-00			IC,DIGITAL:CMOS,SHIFT REGISTER;8-STAGE	04713	MC14094BCP
A3A2U1011	156-0582-00			IC,DIGITAL:CMOS,COUNTER;SYNCH 4-BIT BINARY	04713	MC14516BCP
A3A2U1012	156-0688-00			IC,DIGITAL:ECL,FLIP FLOP;DUAL J-K MASTER	04713	MC10135L
A3A3	671-1325-00			CIRCUIT BD ASSY:VCO,50MHZ	80009	671-1325-00
A3A3C1001	283-0339-00			CAP,FXD,CER DI:0.22UF,10%,50V	04222	SR305C224KAA
A3A3C1002	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A3C1011	283-0024-00			CAP,FXD,CER DI:0.1UF,+80-20%,50V	04222	SR215C104MAA
A3A3C1101	283-0204-00			CAP,FXD,CER DI:0.01UF,20%,50V	04222	SR155E103MAA
A3A3C1102	283-0204-00			CAP,FXD,CER DI:0.01UF,20%,50V	04222	SR155E103MAA
A3A3C1103	283-0197-00			CAP,FXD,CER DI:470PF,5%,50V	04222	SR205A471JAA
A3A3C1104	283-0204-00			CAP,FXD,CER DI:0.01UF,20%,50V	04222	SR155E103MAA
A3A3C1111	283-0204-00			CAP,FXD,CER DI:0.01UF,20%,50V	04222	SR155E103MAA
A3A3C1112	290-0536-00			CAP,FXD,ELCTLT:10UF,20%,25V TANTALUM	31433	T355E106M025AS
A3A3C1113	283-0204-00			CAP,FXD,CER DI:0.01UF,20%,50V	04222	SR155E103MAA
A3A3CR1011	152-0269-00			SEMICOND DVC,DI:VVC,SI,35V,33PF AT 4V,DO-7	04713	SMV1263RL
A3A3CR1012	152-0269-00			SEMICOND DVC,DI:VVC,SI,35V,33PF AT 4V,DO-7	04713	SMV1263RL
A3A3L1011	120-1307-00			TRANSFORMER,RF:TOROID	0JR03	120-1307-00
A3A3L1012	108-0408-00			COIL,RF:FIXED,91NH	0JR03	108-0408-00
A3A3L1111	120-0342-00			XFMR,TOROID:	0JR03	120-0342-00
A3A3L1112	120-0342-00			XFMR,TOROID:	0JR03	120-0342-00
A3A3P1320	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 3)	22526	75377-001
A3A3P1420	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 3)	22526	75377-001
A3A3P1424	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 2)	22526	75377-001
A3A3P1434	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 4)	22526	75377-001
A3A301001	151-0441-00			TRANSISTOR,SIG:BIPOLAR,NPN;15V,40MA,1.0GHZ	04713	2N3839
A3A301002	151-0441-00			TRANSISTOR,SIG:BIPOLAR,NPN;15V,40MA,1.0GHZ	04713	2N3839
A3A301011	151-0367-00			TRANSISTOR,SIG:BIPOLAR,NPN;25V,30MA,1.0GHZ	04713	SPS 8811
A3A301012	151-0367-00			TRANSISTOR,SIG:BIPOLAR,NPN;25V,30MA,1.0GHZ	04713	SPS 8811
A3A301101	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A3A3R1003	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W	19701	5043CX51R00J
A3A3R1004	315-0121-00			RES,FXD,FILM:120 OHM,5%,0.25W	19701	5043CX120R0J
A3A3R1005	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W	19701	5043CX51R00J
A3A3R1006	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W	19701	5043CX51R00J
A3A3R1011	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W	57668	NTR25J-E 100E
A3A3R1103	315-0821-00			RES,FXD,FILM:820 OHM,5%,0.25W	19701	5043CX820R0J
A3A3R1104	315-0152-00			RES,FXD,FILM:1.5K OHM,5%,0.25W	57668	NTR25J-E01K5

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A3A3R1111	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A3R1112	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W	57668	NTR25J-E470E
A3A3R1113	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W	57668	NTR25J-E 100E
A3A3R1114	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A3T1101	120-1105-00			TRANSFORMER,RF:TOROID	0JR03	120-1105-00
A3A3W1002	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA 07
A3A3W1101	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA 07
A3A4	671-1326-00			CIRCUIT BD ASSY:COUNTER	80009	671-1326-00
A3A4C1010	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A4C1020	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A4C1100	283-0024-00			CAP,FXD,CER DI:0.1UF,+80-20%,50V	04222	SR215C104MAA
A3A4C1101	283-0359-00			CAP,FXD,CER DI:1000PF,10%,200V	04222	SR212A102KAA
A3A4C1128	281-0823-00			CAP,FXD,CER DI:470PF,10%,50V	04222	SA101A471KAA
A3A4C1218	283-0359-00			CAP,FXD,CER DI:1000PF,10%,200V	04222	SR212A102KAA
A3A4CR1103	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A4CR1128	152-0322-00			DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A3A4L1015	108-0249-00			CHOKE,RF:FIXED,12UF	0JR03	108-0249-00
A3A4P1010	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 4)	22526	75377-001
A3A4P1100	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 7)	22526	75377-001
A3A4P1207	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 8)	22526	75377-001
A3A4R1012	307-0526-00			RES NTWK,FXD,FI:5,510 OHM,10%,0.125 W	91637	CSC06A01-511J-D03
A3A4R1015	315-0181-00			RES,FXD,FILM:180 OHM,5%,0.25W	57668	NTR25J-E180E
A3A4R1025	315-0121-00			RES,FXD,FILM:120 OHM,5%,0.25W	19701	5043CX120R0J
A3A4R1101	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W	57668	NTR25J-E470E
A3A4R1112	307-0526-00			RES NTWK,FXD,FI:5,510 OHM,10%,0.125 W	91637	CSC06A01-511J-D03
A3A4R1115	315-0301-00			RES,FXD,FILM:300 OHM,5%,0.25W	57668	NTR25J-E300E
A3A4R1128	315-0222-00			RES,FXD,FILM:2.2K OHM,5%,0.25W	57668	NTR25J-E02K2
A3A4R1200	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A3A4R1202	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A3A4R1204	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A4R1205	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A3A4R1210	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A3A4R1212	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A3A4U1000	156-0796-00			IC,DIGITAL:CMOS,SHIFT REGISTER;8-STAGE	04713	MC14094BCP
A3A4U1010	156-2142-01			IC,DIGITAL:ECL,COUNTER;4-BIT BINARY;10H016	04713	MC10H016L
A3A4U1100	156-0796-00			IC,DIGITAL:CMOS,SHIFT REGISTER;8-STAGE	04713	MC14094BCP
A3A4U1110	156-2142-01			IC,DIGITAL:ECL,COUNTER;4-BIT BINARY;10H016	04713	MC10H016L
A3A4U1112	156-0182-02			IC,DIGITAL:ECL,GATE;TRIPLE 2-3-2 INPUT	04713	MC10105PD/LD
A3A4U1200	156-0458-00			IC,DIGITAL:ECL,GATE;QUAD 2-INPUT AND;10104	04713	MC10104L
A3A4U1210	156-0880-00			IC,DIGITAL:ECL,FLIP FLOP;HIGH SPEED DUAL	04713	MC10231L
A3A5	671-1326-00			CIRCUIT BD ASSY:COUNTER	80009	671-1326-00
A3A5C1010	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A5C1020	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A5C1100	283-0024-00			CAP,FXD,CER DI:0.1UF,+80-20%,50V	04222	SR215C104MAA
A3A5C1101	283-0359-00			CAP,FXD,CER DI:1000PF,10%,200V	04222	SR212A102KAA
A3A5C1128	281-0823-00			CAP,FXD,CER DI:470PF,10%,50V	04222	SA101A471KAA

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A3A5C1218	283-0359-00			CAP,FXD,CER DI:1000PF,10%,200V	04222	SR212A102KAA
A3A5CR1103	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A5CR1128	152-0322-00			DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A3A5L1015	108-0249-00			CHOKE,RF:FIXED,12UF	0JR03	108-0249-00
A3A5P1020	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 7)	22526	75377-001
A3A5P1031	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 4)	22526	75377-001
A3A5P1225	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 8)	22526	75377-001
A3A5R1012	307-0526-00			RES NTWK,FXD,FI:5,510 OHM,10%,0.125 W	91637	CSC06A01-511J-D03
A3A5R1015	315-0181-00			RES,FXD,FILM:180 OHM,5%,0.25W	57668	NTR25J-E180E
A3A5R1025	315-0121-00			RES,FXD,FILM:120 OHM,5%,0.25W	19701	5043CX120R0J
A3A5R1101	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W	57668	NTR25J-E470E
A3A5R1112	307-0526-00			RES NTWK,FXD,FI:5,510 OHM,10%,0.125 W	91637	CSC06A01-511J-D03
A3A5R1115	315-0301-00			RES,FXD,FILM:300 OHM,5%,0.25W	57668	NTR25J-E300E
A3A5R1128	315-0222-00			RES,FXD,FILM:2.2K OHM,5%,0.25W	57668	NTR25J-E02K2
A3A5R1200	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A3A5R1202	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A3A5R1204	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A5R1205	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A3A5R1210	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A3A5R1212	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A3A5U1000	156-0796-00			IC,DIGITAL:CMOS,SHIFT REGISTER;8-STAGE	04713	MC14094BCP
A3A5U1010	156-2142-01			IC,DIGITAL:ECL,COUNTER;4-BIT BINARY;10H016	04713	MC10H016L
A3A5U1100	156-0796-00			IC,DIGITAL:CMOS,SHIFT REGISTER;8-STAGE	04713	MC14094BCP
A3A5U1110	156-2142-01			IC,DIGITAL:ECL,COUNTER;4-BIT BINARY;10H016	04713	MC10H016L
A3A5U1112	156-0182-02			IC,DIGITAL:ECL,GATE;TRIPLE 2-3-2 INPUT	04713	MC10105PD/LD
A3A5U1200	156-0458-00			IC,DIGITAL:ECL,GATE;QUAD 2-INPUT AND;10104	04713	MC10104L
A3A5U1210	156-0880-00			IC,DIGITAL:ECL,FLIP FLOP;HIGH SPEED DUAL	04713	MC10231L
A3A6	671-1327-00			CIRCUIT BD ASSY:STEERING	80009	671-1327-00
A3A6C1005	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A6C1010	290-0743-00			CAP,FXD,ELCTLT:100UF,+50%-20%,16WVDC	1W344	SME16T101M6X16LL
A3A6C1020	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A6C1021	283-0024-00			CAP,FXD,CER DI:0.1UF,+80-20%,50V	04222	SR215C104MAA
A3A6C1101	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A6C1105	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A6C1125	283-0198-00			CAP,FXD,CER DI:0.22UF,20%,50V	04222	SR305C224MAA
A3A6C1130	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A6C1133	283-0347-00			CAP,FXD,CER DI:68PF,5%,100V	59660	8121 B179 P3K0 680 J
A3A6C1201	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A6C1220	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A6C1225	283-0347-00			CAP,FXD,CER DI:68PF,5%,100V	59660	8121 B179 P3K0 680 J
A3A6C1228	281-0791-00			CAP,FXD,CER DI:270PF,10%,100V	04222	SA102C271KAA
A3A6C1301	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A6C1302	283-0024-00			CAP,FXD,CER DI:0.1UF,+80-20%,50V	04222	SR215C104MAA
A3A6C1401	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A6C1402	283-0024-00			CAP,FXD,CER DI:0.1UF,+80-20%,50V	04222	SR215C104MAA
A3A6C1403	283-0024-00			CAP,FXD,CER DI:0.1UF,+80-20%,50V	04222	SR215C104MAA
A3A6C1404	283-0024-00			CAP,FXD,CER DI:0.1UF,+80-20%,50V	04222	SR215C104MAA
A3A6CR1020	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A6CR1030	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427

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A3A6CR1031	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A6CR1130	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A6CR1131	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A6CR1132	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A6CR1133	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A6CR1230	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A6CR1231	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A6CR1232	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A6CR1233	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A6CR1310	152-0951-00			DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35	50088	1N6263
A3A6DS1130	150-1043-00			DIODE,OPTO:,LED;RED,635NM,1.5MCD @ IF=20MA	58361	MV5774C
A3A6L1101	120-0342-00			XFMR,TOROID:	0JR03	120-0342-00
A3A6L1301	120-0342-00			XFMR,TOROID:	0JR03	120-0342-00
A3A6P1200	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 5)	22526	75377-001
A3A6P1204	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 3)	22526	75377-001
A3A6P1217	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 3)	22526	75377-001
A3A6P1315	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 3)	22526	75377-001
A3A6P1427	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 5)	22526	75377-001
A3A6P1502	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 7)	22526	75377-001
A3A6P1533	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 6)	22526	75377-001
A3A6P1603	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 6)	22526	75377-001
A3A6P1620	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 8)	22526	75377-001
A3A6Q1001	151-0625-00			TRANSISTOR:PNP,SI,TO-220	04713	D45H11
A3A6Q1002	151-0281-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,500MA,130MHZ	04713	2N6427-18
A3A6Q1010	151-0302-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,800MA,300MHZ	04713	2N2222A
A3A6Q1011	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A3A6Q1012	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A3A6Q1020	151-0302-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,800MA,300MHZ	04713	2N2222A
A3A6Q1021	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A3A6Q1101	151-0625-00			TRANSISTOR:PNP,SI,TO-220	04713	D45H11
A3A6Q1102	151-0281-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,500MA,130MHZ	04713	2N6427-18
A3A6Q1230	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A3A6Q1231	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A3A6Q1301	151-0221-00			TRANSISTOR,SIG:BIPOLAR,PNP;12V,80MA	04713	MPS4258(EL8345)
A3A6R1001	301-0101-00			RES,FXD,FILM:100 OHM,5%,0.5W	19701	5053CX100RDJ
A3A6R1002	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A6R1010	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A6R1011	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A6R1012	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A6R1013	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A6R1020	315-0222-00			RES,FXD,FILM:2.2K OHM,5%,0.25W	57668	NTR25J-E02K2
A3A6R1021	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W	57668	NTR25J-E04K7
A3A6R1022	315-0222-00			RES,FXD,FILM:2.2K OHM,5%,0.25W	57668	NTR25J-E02K2
A3A6R1023	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A6R1024	315-0222-00			RES,FXD,FILM:2.2K OHM,5%,0.25W	57668	NTR25J-E02K2
A3A6R1030	315-0222-00			RES,FXD,FILM:2.2K OHM,5%,0.25W	57668	NTR25J-E02K2
A3A6R1031	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J

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A3A6R1035	315-0222-00			RES,FXD,FILM:2.2K OHM,5%,0.25W	57668	NTR25J-E02K2
A3A6R1100	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A6R1101	301-0101-00			RES,FXD,FILM:100 OHM,5%,0.5W	19701	5053CX100RDJ
A3A6R1110	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W	57668	NTR25J-E470E
A3A6R1111	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W	57668	NTR25J-E470E
A3A6R1112	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W	57668	NTR25J-E04K7
A3A6R1113	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W	57668	NTR25J-E04K7
A3A6R1130	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A6R1131	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A6R1132	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A6R1133	315-0302-00			RES,FXD,FILM:3K OHM,5%,0.25W	57668	NTR25J-E03K0
A3A6R1201	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A6R1220	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A6R1221	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A6R1225	315-0302-00			RES,FXD,FILM:3K OHM,5%,0.25W	57668	NTR25J-E03K0
A3A6R1230	315-0512-00			RES,FXD,FILM:5.1K OHM,5%,0.25W	57668	NTR25J-E05K1
A3A6R1231	315-0512-00			RES,FXD,FILM:5.1K OHM,5%,0.25W	57668	NTR25J-E05K1
A3A6R1301	315-0180-00			RES,FXD,FILM:18 OHM,5%,0.25W	19701	5043CX18R00J
A3A6R1302	315-0180-00			RES,FXD,FILM:18 OHM,5%,0.25W	19701	5043CX18R00J
A3A6R1303	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A3A6R1304	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A3A6R1310	307-0526-00			RES NTWK,FXD,FI:5,510 OHM,10%,0.125W	91637	CSC06A01-511J-D03
A3A6R1410	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W	57668	NTR25J-E 100E
A3A6R1411	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W	57668	NTR25J-E 100E
A3A6R1412	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W	57668	NTR25J-E 100E
A3A6R1413	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A3A6R1414	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A6R1415	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A3A6R1416	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A6T1401	120-1108-00			TRANSFORMER,RF:BALUN,TD-339	0JR03	120-1108-00
A3A6TP1101	214-0579-00			TERM,TEST POINT:BRS CD PL	0J260	ORDER BY DESCRIPTION
A3A6TP1130	214-0579-00			TERM,TEST POINT:BRS CD PL	0J260	ORDER BY DESCRIPTION
A3A6TP1301	214-0579-00			TERM,TEST POINT:BRS CD PL	0J260	ORDER BY DESCRIPTION
A3A6TP1302	214-0579-00			TERM,TEST POINT:BRS CD PL	0J260	ORDER BY DESCRIPTION
A3A6TP1310	214-0579-00			TERM,TEST POINT:BRS CD PL	0J260	ORDER BY DESCRIPTION
A3A6U1020	156-0728-00			IC,DIGITAL:LSTTL,GATES;QUAD 2-INPUT AND, OC	01295	SN74LS09N
A3A6U1030	156-0384-00			IC,DIGITAL:LSTTL,GATES;QUAD 2-INPUT NAND	01295	SN74LS03N
A3A6U1110	156-0784-00			IC,DIGITAL:LSTTL,COUNTER;SYNCH 4-BIT BINARY	01295	SN74LS163AN
A3A6U1120	156-0796-00			IC,DIGITAL:CMOS,SHIFT REGISTER;8-STAGE	04713	MC14094BCP
A3A6U1121	156-0366-00			IC,DIGITAL:CMOS,FLIP FLOP;DUAL D-TYPE;4013B	04713	MC14013BCP
A3A6U1130	156-0366-00			IC,DIGITAL:CMOS,FLIP FLOP;DUAL D-TYPE;4013B	04713	MC14013BCP
A3A6U1201	156-0382-00			IC,DIGITAL:LSTTL,GATE;QUAD 2-INPUT NAND	01295	SN74LS00N
A3A6U1210	156-0784-00			IC,DIGITAL:LSTTL,COUNTER;SYNCH 4-BIT BINARY	01295	SN74LS163AN
A3A6U1211	156-0784-00			IC,DIGITAL:LSTTL,COUNTER;SYNCH 4-BIT BINARY	01295	SN74LS163AN
A3A6U1220	156-0796-00			IC,DIGITAL:CMOS,SHIFT REGISTER;8-STAGE	04713	MC14094BCP
A3A6U1221	156-0349-00			IC,DIGITAL:CMOS,GATE;QUAD 2-INPUT NOR;4001	04713	MC14001UBCP
A3A6U1230	156-0752-00			IC,DIGITAL:CMOS,COUNTER;DUAL 4-BIT BCD UP	04713	MC14518BCL
A3A6U1310	156-0642-00			IC,DIGITAL:ECL,COUNTER;BI-QUINARY;10138	04713	MC10138P
A3A6U1311	156-0282-00			IC,DIGITAL:ECL,GATE;DUAL 4-INPUT OR/NOR	04713	MC1660L
A3A6U1410	156-0880-00			IC,DIGITAL:ECL,FLIP FLOP;HIGH SPEED DUAL	04713	MC10231L
A3A6W1401	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA 07

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A3A7	671-1328-00			CIRCUIT BD ASSY:VCO,100MHZ	80009	671-1328-00
A3A7C1001	283-0339-00			CAP,FXD,CER DI:0.22UF,10%,50V	04222	SR305C224KAA
A3A7C1002	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A7C1011	283-0024-00			CAP,FXD,CER DI:0.1UF,+80-20%,50V	04222	SR215C104MAA
A3A7C1101	283-0204-00			CAP,FXD,CER DI:0.01UF,20%,50V	04222	SR155E103MAA
A3A7C1102	283-0204-00			CAP,FXD,CER DI:0.01UF,20%,50V	04222	SR155E103MAA
A3A7C1103	283-0197-00			CAP,FXD,CER DI:470PF,5%,50V	04222	SR205A471JAA
A3A7C1104	283-0204-00			CAP,FXD,CER DI:0.01UF,20%,50V	04222	SR155E103MAA
A3A7C1111	283-0204-00			CAP,FXD,CER DI:0.01UF,20%,50V	04222	SR155E103MAA
A3A7C1112	290-0536-00			CAP,FXD,ELCTLT:10UF,20%,25V TANTALUM	31433	T355E106M025AS
A3A7C1113	283-0204-00			CAP,FXD,CER DI:0.01UF,20%,50V	04222	SR155E103MAA
A3A7CR1011	152-0269-00			SEMICOND DVC,DI:VVC,SI,35V,33PF AT 4V,DO-7	04713	SMV1263RL
A3A7CR1012	152-0269-00			SEMICOND DVC,DI:VVC,SI,35V,33PF AT 4V,DO-7	04713	SMV1263RL
A3A7L1011	120-1308-00			TRANSFORMER,RF:TOROID	0JR03	120-1308-00
A3A7L1012	108-0408-00			COIL,RF:FIXED,91NH	0JR03	108-0408-00
A3A7L1111	120-0342-00			XFMR,TOROID:	0JR03	120-0342-00
A3A7L1112	120-0342-00			XFMR,TOROID:	0JR03	120-0342-00
A3A7P1220	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 2)	22526	75377-001
A3A7P1222	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 3)	22526	75377-001
A3A7P1230	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 4)	22526	75377-001
A3A7P1324	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 3)	22526	75377-001
A3A7Q1001	151-0441-00			TRANSISTOR,SIG:BIPOLAR,NPN;15V,40MA,1.0GHZ	04713	2N3839
A3A7Q1002	151-0441-00			TRANSISTOR,SIG:BIPOLAR,NPN;15V,40MA,1.0GHZ	04713	2N3839
A3A7Q1011	151-0367-00			TRANSISTOR,SIG:BIPOLAR,NPN;25V,30MA,1.0GHZ	04713	SPS 8811
A3A7Q1012	151-0367-00			TRANSISTOR,SIG:BIPOLAR,NPN;25V,30MA,1.0GHZ	04713	SPS 8811
A3A7Q1101	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A3A7R1001	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A3A7R1002	315-0180-00			RES,FXD,FILM:18 OHM,5%,0.25W	19701	5043CX18R00J
A3A7R1003	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W	19701	5043CX51R00J
A3A7R1004	315-0121-00			RES,FXD,FILM:120 OHM,5%,0.25W	19701	5043CX120R0J
A3A7R1005	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W	19701	5043CX51R00J
A3A7R1006	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W	19701	5043CX51R00J
A3A7R1011	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W	57668	NTR25J-E470E
A3A7R1101	315-0180-00			RES,FXD,FILM:18 OHM,5%,0.25W	19701	5043CX18R00J
A3A7R1102	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A3A7R1103	315-0331-00			RES,FXD,FILM:330 OHM,5%,0.25W	57668	NTR25J-E330E
A3A7R1104	315-0152-00			RES,FXD,FILM:1.5K OHM,5%,0.25W	57668	NTR25J-E01K5
A3A7R1111	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A7R1112	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W	57668	NTR25J-E470E
A3A7R1113	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W	57668	NTR25J-E 100E
A3A7R1114	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A7T1101	120-1105-00			TRANSFORMER,RF:TOROID	0JR03	120-1105-00
A3A8	671-1329-00			CIRCUIT BD ASSY:MAIN PLL	80009	671-1329-00
A3A8C1001	283-0203-00			CAP,FXD,CER DI:0.47UF,20%,50V	04222	SR305C474MAA
A3A8C1010	283-0024-00			CAP,FXD,CER DI:0.1UF,+80-20%,50V	04222	SR215C104MAA
A3A8C1012	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A8C1014	283-0203-00			CAP,FXD,CER DI:0.47UF,20%,50V	04222	SR305C474MAA
A3A8C1020	283-0065-01			CAP,FXD,CER DI:0.001UF,5%,100V	59660	0835-582-Z5E0-0102J

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A3A8C1024	283-0238-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	SR075C103KAA
A3A8C1034	283-0238-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	SR075C103KAA
A3A8C1035	283-0238-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	SR075C103KAA
A3A8C1040	283-0238-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	SR075C103KAA
A3A8C1042	283-0238-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	SR075C103KAA
A3A8C1043	283-0024-00			CAP,FXD,CER DI:0.1UF,+80-20%,50V	04222	SR215C104MAA
A3A8C1045	283-0187-00			CAP,FXD,CER DI:0.047UF,10%,400V	04222	SR308C473KAA
A3A8C1100	283-0339-00			CAP,FXD,CER DI:0.22UF,10%,50V	04222	SR305C224KAA
A3A8C1102	283-0339-00			CAP,FXD,CER DI:0.22UF,10%,50V	04222	SR305C224KAA
A3A8C1110	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A8C1112	283-0620-00			CAP,FXD,MICA DI:470PF,1%,500V	09023	CD15FD471F03
A3A8C1120	283-0024-00			CAP,FXD,CER DI:0.1UF,+80-20%,50V	04222	SR215C104MAA
A3A8C1122	283-0103-00			CAP,FXD,CER DI:180PF,5%,500V	59660	831-518-Z5D0-181J
A3A8C1124	281-0634-00			CAP,FXD,CER DI:10PF,+/-0.25PF,500VDOGBONE	52763	2RDPZZ007 10P0CC
A3A8C1130	283-0024-00			CAP,FXD,CER DI:0.1UF,+80-20%,50V	04222	SR215C104MAA
A3A8C1132	283-0203-00			CAP,FXD,CER DI:0.47UF,20%,50V	04222	SR305C474MAA
A3A8C1134	283-0203-00			CAP,FXD,CER DI:0.47UF,20%,50V	04222	SR305C474MAA
A3A8C1135	283-0024-00			CAP,FXD,CER DI:0.1UF,+80-20%,50V	04222	SR215C104MAA
A3A8C1140	283-0107-00			CAP,FXD,CER DI:51PF,5%,200V	04222	SR292A510JAA
A3A8C1210	283-0698-00			CAP,FXD,MICA DI:390PF,1%,500V	09023	CD15FD391F03
A3A8C1230	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A8C1232	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A8C1240	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A3A8C1242	283-0186-00			CAP,FXD,CER DI:27PF,5%,50V	04222	SR155A 270JAA
A3A8C1244	283-0186-00			CAP,FXD,CER DI:27PF,5%,50V	04222	SR155A 270JAA
A3A8C1246	283-0032-00			CAP,FXD,CER DI:470PF,5%,500V	59660	831 621 Z5E0 471 J
A3A8CR1012	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A8CR1020	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A8CR1030	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A8CR1031	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A8CR1040	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A8CR1120	152-0536-00			DIODE,SIG:SCHTKY,;4V,0.6VF,1.0PF;MBD101	04713	MBD101
A3A8CR1122	152-0536-00			DIODE,SIG:SCHTKY,;4V,0.6VF,1.0PF;MBD101	04713	MBD101
A3A8CR1130	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A8CR1132	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A8CR1133	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A8CR1134	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A3A8CR1212	152-0673-00			SEMICOND DVC,DI:VVC,SI,480PF,18V	04713	MVAM115
A3A8CR1214	152-0673-00			SEMICOND DVC,DI:VVC,SI,480PF,18V	04713	MVAM115
A3A8CR1230	152-0536-00			DIODE,SIG:SCHTKY,;4V,0.6VF,1.0PF;MBD101	04713	MBD101
A3A8CR1232	152-0536-00			DIODE,SIG:SCHTKY,;4V,0.6VF,1.0PF;MBD101	04713	MBD101
A3A8CR1240	152-0536-00			DIODE,SIG:SCHTKY,;4V,0.6VF,1.0PF;MBD101	04713	MBD101
A3A8CR1244	152-0536-00			DIODE,SIG:SCHTKY,;4V,0.6VF,1.0PF;MBD101	04713	MBD101
A3A8DS1131	150-1043-00			DIODE,OPTO:,LED;RED,635NM,1.5MCD @ IF=20MA	58361	MV5774C
A3A8L1200	108-0800-00			COIL,RF:FIXED,820 UH, +/- 10%, DCR 65 OHM	76493	9230-90
A3A8P1021	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 3)	22526	75377-001
A3A8P1106	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 6)	22526	75377-001
A3A8P1126	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 7)	22526	75377-001
A3A8Q1042	151-0254-00			TRANSISTOR,SIG:BIPOLAR,NPN;30V,500MA,125MHZ	04713	MPSA14
A3A8Q1133	151-0435-00			TRANSISTOR,SIG:BIPOLAR,PNP;30V,500MA,125MHZ	04713	MPSA64
A3A8Q1220	151-0288-00			TRANSISTOR,SIG:BIPOLAR,NPN;25V,150MA,1.2	25403	BFW16A

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A3A8R1001	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W	57668	NTR25J-E 100E
A3A8R1002	315-0361-00			RES,FXD,FILM:360 OHM,5%,0.25W	19701	5043CX360R0J
A3A8R1010	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A8R1012	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A8R1014	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W	57668	NTR25J-E470E
A3A8R1020	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A8R1022	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W	57668	NTR25J-E04K7
A3A8R1024	315-0473-00			RES,FXD,FILM:47K OHM,5%,0.25W	57668	NTR25J-E47K0
A3A8R1026	315-0185-00			RES,FXD,FILM:1.8M OHM,5%,0.25W	01121	CB1855
A3A8R1030	315-0222-00			RES,FXD,FILM:2.2K OHM,5%,0.25W	57668	NTR25J-E02K2
A3A8R1031	321-0222-00			RES,FXD,FILM:2.00K OHM,1%,0.125W,TC=T0	91637	CMF55116G20000F
A3A8R1032	321-0222-00			RES,FXD,FILM:2.00K OHM,1%,0.125W,TC=T0	91637	CMF55116G20000F
A3A8R1034	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W	57668	NTR25J-E04K7
A3A8R1040	315-0474-00			RES,FXD,FILM:470K OHM,5%,0.25W	19701	5043CX470K0J92U
A3A8R1042	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W	57668	NTR25J-E04K7
A3A8R1043	315-0392-00			RES,FXD,FILM:3.9K OHM,5%,0.25W	57668	NTR25J-E03K9
A3A8R1045	315-0271-00			RES,FXD,FILM:270 OHM,5%,0.25W	57668	NTR25J-E270E
A3A8R1100	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A8R1102	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A8R1104	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A8R1112	315-0182-00			RES,FXD,FILM:1.8K OHM,5%,0.25W	57668	NTR25J-E1K8
A3A8R1120	315-0271-00			RES,FXD,FILM:270 OHM,5%,0.25W	57668	NTR25J-E270E
A3A8R1122	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A8R1132	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A3A8R1133	315-0104-00			RES,FXD,FILM:100K OHM,5%,0.25W	57668	NTR25J-E100K
A3A8R1134	315-0104-00			RES,FXD,FILM:100K OHM,5%,0.25W	57668	NTR25J-E100K
A3A8R1140	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A3A8R1141	315-0273-00			RES,FXD,FILM:27K OHM,5%,0.25W	57668	NTR25J-E27K0
A3A8R1142	315-0105-00			RES,FXD,FILM:1M OHM,5%,0.25W	19701	5043CX1M000J
A3A8R1144	321-0510-00			RES,FXD,FILM:2.00M OHM,1%,0.125W,TC=T0	91637	CMF55116G20003F
A3A8R1146	321-0510-00			RES,FXD,FILM:2.00M OHM,1%,0.125W,TC=T0	91637	CMF55116G20003F
A3A8R1200	321-0193-00			RES,FXD,FILM:1K OHM,1%,0.125W,TC=T0	91637	CMF55116G10000F
A3A8R1202	315-0475-00			RES,FXD,FILM:4.7M OHM,5%,0.25W	01121	CB4755
A3A8R1210	315-0104-00			RES,FXD,FILM:100K OHM,5%,0.25W	57668	NTR25J-E100K
A3A8R1212	315-0473-00			RES,FXD,FILM:47K OHM,5%,0.25W	57668	NTR25J-E47K0
A3A8R1214	315-0104-00			RES,FXD,FILM:100K OHM,5%,0.25W	57668	NTR25J-E100K
A3A8R1220	311-1245-00			RES,VAR,NONWW:TRMR,10K OHM,0.5W	32997	3386X-DY6-103
A3A8R1230	315-0750-00			RES,FXD,FILM:75 OHM,5%,0.25W	57668	NTR25J-E75E0
A3A8R1240	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W	19701	5043CX51R00J
A3A8R1242	321-0097-00			RES,FXD,FILM:100 OHM,1%,0.125W,TC=T0	91637	CMF55116G100R0F
A3A8R1244	321-0097-00			RES,FXD,FILM:100 OHM,1%,0.125W,TC=T0	91637	CMF55116G100R0F
A3A8T1230	120-1109-00			TRANSFORMER,RF:PULSE	0JR03	120-1109-00
A3A8T1232	120-1108-00			TRANSFORMER,RF:BALUN,TD-339	0JR03	120-1108-00
A3A8U1024	156-0912-00			IC,LINEAR:BIPOLAR,OP-AMP;TRANSCONDUCTANCE	27014	LM3080N
A3A8U1100	156-0067-00			IC,LINEAR:BIPOLAR,OP-AMP	04713	MC1741CP1
A3A8U1110	156-1304-00			IC,DIGITAL:TTL,RECEIVER;DUAL SINGLE ENDED	01295	SN75140P
A3A8U1112	156-0387-02			IC,DIGITAL:LSTTL,FLIP FLOP;DUPLICATE OF	01295	SN74LS73AN
A3A8U1140	156-0512-00			IC,LINEAR:BIPOLAR,OP-AMP;LOW INPUT BIAS	04713	LM308N
A3A8Y1200	158-0079-00			XTAL UNIT,QTZ:1MHZ 0.001%, PARALLEL,ESR 800	50140	150-4240

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A3A9	671-1330-00	B010100	B010151	CIRCUIT BD ASSY:ADVANCED TIMING	80009	671-1330-00
A3A9	671-1330-01	B010152	B010164	CIRCUIT BD ASSY:ADVANCED TIMING	80009	671-1330-01
A3A9	671-1330-02	B010165	B010668	CIRCUIT BD ASSY:ADVANCED TIMING	80009	671-1330-02
A3A9	671-1330-03	B010669		CIRCUIT BD ASSY:ADVANCED TIMING (CG5011 ONLY)	80009	671-1330-03
A3A9C1020	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C1030	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C1031	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C1040	283-5002-00			CAP,FXD,CER DI:1000PF,10%,50V	04222	12065A102KAT1A
A3A9C1041	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C1042	283-5002-00			CAP,FXD,CER DI:1000PF,10%,50V	04222	12065A102KAT1A
A3A9C1050	283-5009-00			CAP,FXD,CER DI:15PF,5%,50V	14674	CC1206C0G150J050PB
A3A9C1051	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C1052	283-5002-00			CAP,FXD,CER DI:1000PF,10%,50V	04222	12065A102KAT1A
A3A9C1053	283-5049-00			CAP,FXD,CER DI:180PF,5%,50V	54583	C3216C0G1H181J-T00AA
A3A9C1054	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C2010	283-5004-00			CAP,FXD,CER DI:0.1UF,10%,25V	04222	W1206X104K1B01
A3A9C2020	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C2030	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C2031	283-5002-00			CAP,FXD,CER DI:1000PF,10%,50V	04222	12065A102KAT1A
A3A9C2032	283-5002-00			CAP,FXD,CER DI:1000PF,10%,50V	04222	12065A102KAT1A
A3A9C2040	283-5002-00			CAP,FXD,CER DI:1000PF,10%,50V	04222	12065A102KAT1A
A3A9C2041	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C2050	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C2051	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C2052	283-5049-00			CAP,FXD,CER DI:180PF,5%,50V	54583	C3216C0G1H181J-T00AA
A3A9C2060	283-5049-00			CAP,FXD,CER DI:180PF,5%,50V	54583	C3216C0G1H181J-T00AA
A3A9C2061	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C2062	283-5049-00			CAP,FXD,CER DI:180PF,5%,50V	54583	C3216C0G1H181J-T00AA
A3A9C3010	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C3020	283-5016-00			CAP,FXD,CER DI:1UF,10%,50V	04222	22255C105KAT1A
A3A9C3021	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C3030	283-5004-00			CAP,FXD,CER DI:0.1UF,10%,25V	04222	W1206X104K1B01
A3A9C3031	283-5005-00			CAP,FXD,CER DI:4PF,+/- 0.25PF,50V	54583	C3216C0G1H040C-T00AA
A3A9C3032	290-5000-00	B010100	B010668	CAP,FXD,ELCTLT:1UF,20%,50V	1W344	ALS50HC1R0MATE128R
A3A9C3032	290-5043-00	B010669		CAP,FXD,TANT:DRY;3.3UF,10%,50V,TANT OXIDE (CG5011 ONLY)	04222	TAJD335K050R
A3A9C3033	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C3050	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C3051	283-5049-00			CAP,FXD,CER DI:180PF,5%,50V	54583	C3216C0G1H181J-T00AA
A3A9C3060	283-5042-00			CAP,FXD,CER DI:27PF,5%,50V	04222	W1206C270J2B04
A3A9C3061	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C3062	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C3070	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C4020	283-5004-00			CAP,FXD,CER DI:0.1UF,10%,25V	04222	W1206X104K1B01
A3A9C4021	283-5016-00			CAP,FXD,CER DI:1UF,10%,50V	04222	22255C105KAT1A
A3A9C4022	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C4023	290-5002-00			CAP,FXD,ELCTLT:10UF,20V	0J9R5	20MC106MDTER
A3A9C4050	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C4051	283-5005-00			CAP,FXD,CER DI:4PF,+/- 0.25PF,50V	54583	C3216C0G1H040C-T00AA
A3A9C4052	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C4053	283-5005-00			CAP,FXD,CER DI:4PF,+/- 0.25PF,50V	54583	C3216C0G1H040C-T00AA
A3A9C4054	283-5042-00			CAP,FXD,CER DI:27PF,5%,50V	04222	W1206C270J2B04
A3A9C4055	283-5042-00			CAP,FXD,CER DI:27PF,5%,50V	04222	W1206C270J2B04
A3A9C4056	283-5003-00			CAP,FXD,CER DI:0.01UF,10%,50V	04222	12065C103KAT1A
A3A9C4057	283-5042-00			CAP,FXD,CER DI:27PF,5%,50V	04222	W1206C270J2B04
A3A9C4060	283-5002-00			CAP,FXD,CER DI:1000PF,10%,50V	04222	12065A102KAT1A

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A3A9J3070	131-0265-00			CONN,RF PLUG:SMB,PCB,MALE,RTANG,50 OHM	0GZV8	85SMB-50-0-1
A3A9L1040	108-5032-00			COIL,RF:,INDUCTOR;FXD,150NH,5%,Q=25 AT	02113	1008CS-151XJ2A
A3A9L1050	108-5030-00			COIL,RF:FXD,100NH, +/- 10 %,Q=25,SRF 950	02113	1008CS-101XK2A
A3A9L3060	108-5032-00			COIL,RF:,INDUCTOR;FXD,150NH,5%,Q=25 AT	02113	1008CS-151XJ2A
A3A9P1010	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 5)	22526	75377-001
A3A9P1020	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 3)	22526	75377-001
A3A9P1030	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 1)	22526	75377-001
A3A9P1207	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN (QUANTITY OF 1)	22526	75377-001
A3A902010	151-5001-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	MMBT3904T1/T2
A3A902011	151-5005-00			TRANSISTOR,SIG:BIPOLAR,PNP;20V,1.0A,60MHZ	25088	BCX69
A3A9R1020	321-5015-00			RES,FXD,FILM:562 OHM,1%,0.125W	91637	CROW12065620FT
A3A9R1021	321-5015-00			RES,FXD,FILM:562 OHM,1%,0.125W	91637	CROW12065620FT
A3A9R1030	321-5015-00			RES,FXD,FILM:562 OHM,1%,0.125W	91637	CROW12065620FT
A3A9R1031	321-5018-00			RES,FXD,FILM:1.00K,1%,0.125W	91637	CROW12061001FT
A3A9R1050	321-5000-00			RES,FXD,FILM:10 OHM,1%,0.125W	91637	CROW120610R0FT
A3A9R1051	321-5000-00			RES,FXD,FILM:10 OHM,1%,0.125W	91637	CROW120610R0FT
A3A9R1052	325-5004-00			RES,FXD,FILM:51 OHM,5%,0.125W	91637	CROW-1206-510 JT
A3A9R2010	321-5018-00			RES,FXD,FILM:1.00K,1%,0.125W	91637	CROW12061001FT
A3A9R2011	321-5026-00			RES,FXD,FILM:4.75K,1%,0.125W	91637	CROW12064751FT
A3A9R2020	321-5015-00			RES,FXD,FILM:562 OHM,1%,0.125W	91637	CROW12065620FT
A3A9R2021	321-5015-00			RES,FXD,FILM:562 OHM,1%,0.125W	91637	CROW12065620FT
A3A9R2022	321-5015-00			RES,FXD,FILM:562 OHM,1%,0.125W	91637	CROW12065620FT
A3A9R2023	321-5015-00			RES,FXD,FILM:562 OHM,1%,0.125W	91637	CROW12065620FT
A3A9R2024	321-5015-00			RES,FXD,FILM:562 OHM,1%,0.125W	91637	CROW12065620FT
A3A9R2030	321-5018-00			RES,FXD,FILM:1.00K,1%,0.125W	91637	CROW12061001FT
A3A9R2031	321-5015-00			RES,FXD,FILM:562 OHM,1%,0.125W	91637	CROW12065620FT
A3A9R2032	321-5015-00			RES,FXD,FILM:562 OHM,1%,0.125W	91637	CROW12065620FT
A3A9R2033	321-5015-00			RES,FXD,FILM:562 OHM,1%,0.125W	91637	CROW12065620FT
A3A9R2034	321-5018-00			RES,FXD,FILM:1.00K,1%,0.125W	91637	CROW12061001FT
A3A9R2035	325-5004-00			RES,FXD,FILM:51 OHM,5%,0.125W	91637	CROW-1206-510 JT
A3A9R2036	325-5004-00			RES,FXD,FILM:51 OHM,5%,0.125W	91637	CROW-1206-510 JT
A3A9R2037	325-5004-00			RES,FXD,FILM:51 OHM,5%,0.125W	91637	CROW-1206-510 JT
A3A9R2040	325-5004-00			RES,FXD,FILM:51 OHM,5%,0.125W	91637	CROW-1206-510 JT
A3A9R2041	325-5004-00			RES,FXD,FILM:51 OHM,5%,0.125W	91637	CROW-1206-510 JT
A3A9R2042	321-5003-00			RES,FXD,FILM:18.2 OHM,1%,0.125W	91637	CROW120618R2FT
A3A9R2043	321-5010-00			RES,FXD,FILM:221 OHM,1%,0.125W	91637	CROW12062210FT
A3A9R2044	321-5045-00			RES,FXD,FILM:68.1 OHM,1%,0.125W	91637	CROW120668R1FT
A3A9R2045	321-5010-00			RES,FXD,FILM:221 OHM,1%,0.125W	91637	CROW12062210FT
A3A9R2046	321-5000-00			RES,FXD,FILM:10 OHM,1%,0.125W	91637	CROW120610R0FT
A3A9R2047	321-5000-00			RES,FXD,FILM:10 OHM,1%,0.125W	91637	CROW120610R0FT
A3A9R2050	321-5000-00			RES,FXD,FILM:10 OHM,1%,0.125W	91637	CROW120610R0FT
A3A9R2051	325-5004-00			RES,FXD,FILM:51 OHM,5%,0.125W	91637	CROW-1206-510 JT
A3A9R2052	325-5004-00			RES,FXD,FILM:51 OHM,5%,0.125W	91637	CROW-1206-510 JT
A3A9R2053	325-5004-00			RES,FXD,FILM:51 OHM,5%,0.125W	91637	CROW-1206-510 JT
A3A9R2054	325-5004-00			RES,FXD,FILM:51 OHM,5%,0.125W	91637	CROW-1206-510 JT
A3A9R2060	321-5000-00			RES,FXD,FILM:10 OHM,1%,0.125W	91637	CROW120610R0FT
A3A9R3010	321-5026-00			RES,FXD,FILM:4.75K,1%,0.125W	91637	CROW12064751FT
A3A9R3020	321-5017-00			RES,FXD,FILM:825 OHM,1%,0.125W	91637	CROW12068250FT
A3A9R3021	321-5017-00			RES,FXD,FILM:825 OHM,1%,0.125W	91637	CROW12068250FT
A3A9R3022	321-5026-00			RES,FXD,FILM:4.75K,1%,0.125W	91637	CROW12064751FT
A3A9R3023	321-5015-00			RES,FXD,FILM:562 OHM,1%,0.125W	91637	CROW12065620FT
A3A9R3024	321-5026-00			RES,FXD,FILM:4.75K,1%,0.125W	91637	CROW12064751FT

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A3A9R3025	321-5025-00			RES,FXD,FILM:3.92K,1%,0.125W	91637	CRCW12063921FT
A3A9R3030	321-5041-00			RES,FXD,FILM:82.5K,1%,0.125W	91637	CRCW12068252FT
A3A9R3031	321-5018-00	B010100	B010151	RES,FXD,FILM:1.00K,1%,0.125W	91637	CRCW12061001FT
A3A9R3031	321-5010-00	B010152	B010164	RES,FXD,FILM:221 OHM,1%,0.125W	91637	CRCW12062210FT
A3A9R3031	321-5016-00	B010165		RES,FXD,FILM:681 OHM,1%,0.125W (CG5011 ONLY)	91637	CRCW12066810FT
A3A9R3032	321-5011-00			RES,FXD,FILM:274 OHM,1%,0.125W	91637	CRCW12062740FT
A3A9R3033	321-5023-00			RES,FXD,FILM:2.74K,1%,0.125W	91637	CRCW12062741FT
A3A9R3034	321-5023-00			RES,FXD,FILM:2.74K,1%,0.125W	91637	CRCW12062741FT
A3A9R3050	321-5000-00			RES,FXD,FILM:10 OHM,1%,0.125W	91637	CRCW120610R0FT
A3A9R3051	325-5004-00			RES,FXD,FILM:51 OHM,5%,0.125W	91637	CRCW-1206-510 JT
A3A9R3052	325-5004-00			RES,FXD,FILM:51 OHM,5%,0.125W	91637	CRCW-1206-510 JT
A3A9R4010	321-5018-00			RES,FXD,FILM:1.00K,1%,0.125W	91637	CRCW12061001FT
A3A9R4011	321-5000-00			RES,FXD,FILM:10 OHM,1%,0.125W	91637	CRCW120610R0FT
A3A9R4020	321-5017-00			RES,FXD,FILM:825 OHM,1%,0.125W	91637	CRCW12068250FT
A3A9R4021	321-5026-00			RES,FXD,FILM:4.75K,1%,0.125W	91637	CRCW12064751FT
A3A9R4022	321-5000-00			RES,FXD,FILM:10 OHM,1%,0.125W	91637	CRCW120610R0FT
A3A9R4023	321-5014-00			RES,FXD,FILM:475 OHM,1%,0.125W	91637	CRCW12064750FT
A3A9R4040	321-5006-00			RES,FXD,FILM:100 OHM,1%,0.125W	91637	CRCW12061000FT
A3A9R4041	321-5005-00			RES,FXD,FILM:27.4 OHM,1%,0.125W	91637	CRCW120627R4FT
A3A9R4042	321-5006-00			RES,FXD,FILM:100 OHM,1%,0.125W	91637	CRCW12061000FT
A3A9R4043	321-5007-00			RES,FXD,FILM:121 OHM,1%,0.125W	91637	CRCW12061210FT
A3A9R4044	325-5004-00			RES,FXD,FILM:51 OHM,5%,0.125W	91637	CRCW-1206-510 JT
A3A9R4050	321-5000-00			RES,FXD,FILM:10 OHM,1%,0.125W	91637	CRCW120610R0FT
A3A9R4051	325-5004-00			RES,FXD,FILM:51 OHM,5%,0.125W	91637	CRCW-1206-510 JT
A3A9R4052	325-5004-00			RES,FXD,FILM:51 OHM,5%,0.125W	91637	CRCW-1206-510 JT
A3A9R4060	321-5000-00			RES,FXD,FILM:10 OHM,1%,0.125W	91637	CRCW120610R0FT
A3A9U1020	156-5383-00			IC,DIGITAL:ECL,GATE;QUAD OR/NOR;10H101	04713	MC10H101FN
A3A9U1030	156-5977-00			IC,DIGITAL:ECL,PRESCALER;DIVIDE BY 5/6,TWO	04713	MC12009FN
A3A9U1040	156-5918-00			IC,LINEAR:BIPOLAR,AMPLIFIER;MICROWAVE,23DB	62104	UPC1678G
A3A9U1050	156-5923-00			IC,DIGITAL:BIPOLAR,PRESCALER;DIVIDE BY 2	62104	UPB584G
A3A9U2020	156-5976-00			IC,DIGITAL:ECL,MISC;PHASE FREQUENCY	04713	MC12040FN
A3A9U2030	156-5221-00			IC,DIGITAL:ECL,FLIP FLOP;DUAL D-TYPE;10H131	04713	MC10H131FN
A3A9U2050	156-5922-00			IC,LINEAR:BIPOLAR,AMPLIFIER;MICROWAVE,12DB	62104	UPC1675G
A3A9U3010	156-5254-00			IC,DIGITAL:HCTCMOS,REGISTER;8-STAGE SHIFT	18324	74HCT4094D
A3A9U3020	156-5018-00			IC,LINEAR:BIPOLAR,OP-AMP;DUAL,SINGLE SUPPLY	01295	LM358D
A3A9U3030	156-5714-00			IC,LINEAR:BIPOLAR,VOLTAGE REGULATOR	27014	LM317LM
A3A9U3040	119-5005-00			OSCILLATOR:VCO,1.3-2.3GHZ,TUNE VOLT 3.5	TK2314	V600S003
A3A9U3041	156-6021-00			IC,MISC:CMOS/GAAS,ANALOG MUX;4 CHANNEL	96341	SW-369
A3A9U3050	156-5923-00			IC,DIGITAL:BIPOLAR,PRESCALER;DIVIDE BY 2	62104	UPB584G
A3A9U4020	156-5714-00			IC,LINEAR:BIPOLAR,VOLTAGE REGULATOR	27014	LM317LM
A3A9U4050	156-5923-00			IC,DIGITAL:BIPOLAR,PRESCALER;DIVIDE BY 2	62104	UPB584G
A3A9U4051	156-5922-00			IC,LINEAR:BIPOLAR,AMPLIFIER;MICROWAVE,12DB	62104	UPC1675G
A3A9U4060	156-5918-00			IC,LINEAR:BIPOLAR,AMPLIFIER;MICROWAVE,23DB	62104	UPC1678G
A3A9VR1030	152-5004-00			DIODE,SIG:,ULTRA FAST;70V,0.15A,6NS	25088	BAV99-E6327
A3A9VR2010	152-5023-00			DIODE,ZENER:,;5.1V,5%,225MW;MMBZ5231BL	04713	MMBZ5231BLT1
A3A9VR3000	152-5004-00			DIODE,SIG:,ULTRA FAST;70V,0.15A,6NS	25088	BAV99-E6327
A3A9VR4000	152-5004-00			DIODE,SIG:,ULTRA FAST;70V,0.15A,6NS	25088	BAV99-E6327

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A4	671-1331-00	B010100	B010209	CIRCUIT BD ASSY:TIME MARK	80009	671-1331-00
A4	671-1331-01	B010210		CIRCUIT BD ASSY:TIME MARK (CG5010 ONLY)	80009	671-1331-01
A4	671-1332-00	B010100	B010209	CIRCUIT BD ASSY:TIME MARK	80009	671-1332-00
A4	671-1332-01	B010210		CIRCUIT BD ASSY:TIME MARK (CG5010 OPTION 01 ONLY)	80009	671-1332-01
A4	671-2376-00	B010100	B010329	CIRCUIT BD ASSY:TIME MARK	80009	671-2376-00
A4	671-2376-01	B010330	B011100	CIRCUIT BD ASSY:TIME MARK (CG5011 ONLY)	80009	671-2376-01
A4	671-2377-00	B010100	B010329	CIRCUIT BD ASSY:TIME MARK	80009	671-2377-00
A4	671-2377-01	B010330	B011298	CIRCUIT BD ASSY:TIME MARK	80009	671-2377-01
A4	671-2377-02	B011299		CIRCUIT BD ASSY:TIME MARK (CG5011 ONLY)	80009	671-2377-02
A4C1000	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1001	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1003	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1005	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1010	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1011	281-0140-00			CAP,VAR,CER DI:5-25PF,100V	59660	518-038A-5-25
A4C1020	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1021	281-0812-00			CAP,FXD,CER DI:1000PF,10%,100V	04222	SA101C102KAA
A4C1022	281-0763-00			CAP,FXD,CER DI:47PF,10%,100V	04222	SA102A470KAA
A4C1030	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A4C1031	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A4C1100	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1101	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1110	281-0814-00			CAP,FXD,CER DI:100 PF,10%,100V	04222	SA102A101KAA
A4C1111	281-0797-00			CAP,FXD,CER DI:15PF,10%,100V	04222	SA102A150KAA
A4C1120	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1121	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1122	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A4C1130	281-0811-00			CAP,FXD,CER DI:10PF,10%,100V	04222	SA102A100KAA
A4C1205	281-0773-00	B010210		CAP,FXD,CER DI:0.01UF,10%,100V (CG5010 & OPTION 01 ONLY)	04222	SA101C103KAA
A4C1205	281-0773-00	B010330		CAP,FXD,CER DI:0.01UF,10%,100V (CG5011 ONLY)	04222	SA101C103KAA
A4C1210	281-0762-00			CAP,FXD,CER DI:27PF,20%,100V	04222	SA102A270MAA
A4C1211	290-0524-00			CAP,FXD,ELCTLT:4.7UF,20%,10V	31433	T355A475M010AS
A4C1212	281-0762-00			CAP,FXD,CER DI:27PF,20%,100V	04222	SA102A270MAA
A4C1213	281-0788-00			CAP,FXD,CER DI:470PF,10%,100V	04222	SA102C471KAA
A4C1214	281-0813-00			CAP,FXD,CER DI:0.047UF,20%,50V	04222	SA105E473MAA
A4C1217	283-0168-00	B010210		CAP,FXD,CER DI:12PF,5%,100V (CG5010 & OPTION 01 ONLY)	04222	SR151A120JAA
A4C1217	283-0168-00	B010330		CAP,FXD,CER DI:12PF,5%,100V (CG5011 ONLY)	04222	SR151A120JAA
A4C1220	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1230	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A4C1231	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A4C1300	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V (CG5010 ONLY)	04222	SA105E104MAA
A4C1305	281-0773-00	B010210		CAP,FXD,CER DI:0.01UF,10%,100V (CG5010 & OPTION 01 ONLY)	04222	SA101C103KAA
A4C1305	281-0773-00	B010330		CAP,FXD,CER DI:0.01UF,10%,100V (CG5011 ONLY)	04222	SA101C103KAA
A4C1310	283-0047-00			CAP,FXD,CER DI:270PF,5%,500V	59660	083160Z5F0271J
A4C1311	281-0762-00			CAP,FXD,CER DI:27PF,20%,100V	04222	SA102A270MAA
A4C1330	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A4C1331	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V (CG5010 ONLY)	04222	SA105E104MAA
A4C1350	281-0773-00	B010210		CAP,FXD,CER DI:0.01UF,10%,100V (CG5010 & OPTION 01 ONLY)	04222	SA101C103KAA
A4C1350	281-0773-00	B010330		CAP,FXD,CER DI:0.01UF,10%,100V (CG5011 ONLY)	04222	SA101C103KAA
A4C1400	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1401	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1410	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A4C1411	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A4C1412	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A4C1414	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A4C1415	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A4C1416	281-0775-00	B010100	B010209	CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A4C1416	281-0773-00	B010210		CAP,FXD,CER DI:0.01UF,10%,100V (CG5010 & OPTION 01 ONLY)	04222	SA101C103KAA
A4C1416	281-0775-00	B010100	B010329	CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A4C1416	281-0773-00	B010330		CAP,FXD,CER DI:0.01UF,10%,100V (CG5011 ONLY)	04222	SA101C103KAA
A4C1420	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1421	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1430	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1431	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1500	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A4C1501	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A4C1502	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A4C1510	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A4C1520	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1530	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1531	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1532	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1600	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1601	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1602	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1610	290-0529-00			CAP,FXD,ELCTLT:47UF,20%,20V	31433	T354K476M020AS
A4C1620	281-0814-00			CAP,FXD,CER DI:100 PF,10%,100V	04222	SA102A101KAA
A4C1621	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A4C1622	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A4C1623	290-0529-00			CAP,FXD,ELCTLT:47UF,20%,20V	31433	T354K476M020AS
A4C1628	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A4C1629	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A4CR1010	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A4CR1011	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A4CR1012	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A4CR1020	152-0322-00	B010100	B010209	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1020	152-0951-00	B010210		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5010 & OPTION 01 ONLY)	50088	1N6263
A4CR1020	152-0322-00	B010100	B010329	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1020	152-0951-00	B010330		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5011 ONLY)	50088	1N6263
A4CR1021	152-0322-00	B010100	B010209	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1021	152-0951-00	B010210		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5010 & OPTION 01 ONLY)	50088	1N6263
A4CR1021	152-0322-00	B010100	B010329	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1021	152-0951-00	B010330		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5011 ONLY)	50088	1N6263

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A4CR1031	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A4CR1102	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A4CR1103	152-0322-00	B010100	B010209	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1103	152-0951-00	B010210		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5010 & OPTION 01 ONLY)	50088	1N6263
A4CR1103	152-0322-00	B010100	B010329	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1103	152-0951-00	B010330		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5011 ONLY)	50088	1N6263
A4CR1110	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A4CR1111	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A4CR1112	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A4CR1121	152-0322-00	B010100	B010209	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1121	152-0951-00	B010210		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5010 & OPTION 01 ONLY)	50088	1N6263
A4CR1121	152-0322-00	B010100	B010329	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1121	152-0951-00	B010330		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5011 ONLY)	50088	1N6263
A4CR1122	152-0322-00	B010100	B010209	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1122	152-0951-00	B010210		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5010 & OPTION 01 ONLY)	50088	1N6263
A4CR1122	152-0322-00	B010100	B010329	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1122	152-0951-00	B010330		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5011 ONLY)	50088	1N6263
A4CR1200	152-0322-00	B010100	B010209	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1200	152-0951-00	B010210		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5010 & OPTION 01 ONLY)	50088	1N6263
A4CR1200	152-0322-00	B010100	B010329	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1200	152-0951-00	B010330		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5011 ONLY)	50088	1N6263
A4CR1210	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A4CR1211	152-0322-00	B010100	B010209	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1211	152-0951-00	B010210		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5010 & OPTION 01 ONLY)	50088	1N6263
A4CR1211	152-0322-00	B010100	B010329	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1211	152-0951-00	B010330		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5011 ONLY)	50088	1N6263
A4CR1212	152-0322-00	B010100	B010209	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1212	152-0951-00	B010210		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5010 & OPTION 01 ONLY)	50088	1N6263
A4CR1212	152-0322-00	B010100	B010329	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1212	152-0951-00	B010330		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5011 ONLY)	50088	1N6263
A4CR1217	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A4CR1220	152-0322-00	B010100	B010209	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1220	152-0951-00	B010210		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5010 & OPTION 01 ONLY)	50088	1N6263
A4CR1220	152-0322-00	B010100	B010329	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1220	152-0951-00	B010330		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5011 ONLY)	50088	1N6263
A4CR1221	152-0322-00	B010100	B010209	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1221	152-0951-00	B010210		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5010 & OPTION 01 ONLY)	50088	1N6263
A4CR1221	152-0322-00	B010100	B010329	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1221	152-0951-00	B010330		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5011 ONLY)	50088	1N6263

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A4CR1223	152-0322-00	B010100	B010209	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1223	152-0951-00	B010210		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5010 & OPTION 01 ONLY)	50088	1N6263
A4CR1223	152-0322-00	B010100	B010329	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1223	152-0951-00	B010330		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5011 ONLY)	50088	1N6263
A4CR1224	152-0322-00	B010100	B010209	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1224	152-0951-00	B010210		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5010 & OPTION 01 ONLY)	50088	1N6263
A4CR1224	152-0322-00	B010100	B010329	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1224	152-0951-00	B010330		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5011 ONLY)	50088	1N6263
A4CR1230	152-0322-00	B010100	B010209	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1230	152-0951-00	B010210		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5010 & OPTION 01 ONLY)	50088	1N6263
A4CR1230	152-0322-00	B010100	B010329	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1230	152-0951-00	B010330		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5011 ONLY)	50088	1N6263
A4CR1231	152-0322-00	B010100	B010209	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1231	152-0951-00	B010210		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5010 & OPTION 01 ONLY)	50088	1N6263
A4CR1231	152-0322-00	B010100	B010329	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1231	152-0951-00	B010330		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5011 ONLY)	50088	1N6263
A4CR1310	152-0322-00	B010100	B010209	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1310	152-0951-00	B010210		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5010 & OPTION 01 ONLY)	50088	1N6263
A4CR1310	152-0322-00	B010100	B010329	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1310	152-0951-00	B010330		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5011 ONLY)	50088	1N6263
A4CR1311	152-0322-00	B010100	B010209	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1311	152-0951-00	B010210		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5010 & OPTION 01 ONLY)	50088	1N6263
A4CR1311	152-0322-00	B010100	B010329	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1311	152-0951-00	B010330		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5011 ONLY)	50088	1N6263
A4CR1312	152-0322-00	B010100	B010209	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1312	152-0951-00	B010210		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5010 & OPTION 01 ONLY)	50088	1N6263
A4CR1312	152-0322-00	B010100	B010329	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1312	152-0951-00	B010330		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5011 ONLY)	50088	1N6263
A4CR1313	152-0322-00	B010100	B010209	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1313	152-0951-00	B010210		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5010 & OPTION 01 ONLY)	50088	1N6263
A4CR1313	152-0322-00	B010100	B010329	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1313	152-0951-00	B010330		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5011 ONLY)	50088	1N6263
A4CR1320	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A4CR1330	152-0322-00	B010100	B010209	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1330	152-0951-00	B010210		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5010 & OPTION 01 ONLY)	50088	1N6263
A4CR1330	152-0322-00	B010100	B010329	DIODE,SIG:SCHTKY,;15V,1.2PF,0.410MV	50434	5082-2672-T25
A4CR1330	152-0951-00	B010330		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5011 ONLY)	50088	1N6263
A4CR1331	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A4CR1410	152-0141-02	B010100	B010209	DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A4CR1410	152-0951-00	B010210		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5010 & OPTION 01 ONLY)	50088	1N6263
A4CR1410	152-0141-02	B010100	B010329	DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A4CR1410	152-0951-00	B010330		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5011 ONLY)	50088	1N6263
A4CR1411	152-0141-02	B010100	B010209	DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A4CR1411	152-0951-00	B010210		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5010 & OPTION 01 ONLY)	50088	1N6263
A4CR1411	152-0141-02	B010100	B010329	DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A4CR1411	152-0951-00	B010330		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5011 ONLY)	50088	1N6263
A4CR1610	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A4CR1611	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A4DS1410	150-1043-00			DIODE,OPTO:,LED;RED,635NM,1.5MCD @ IF=20MA	58361	MV5774C
A4F1630	159-0042-00			FUSE,CARTRIDGE:3AG,0.75A,250V,0.15SEC	71400	AGC-3/4
A4F1631	159-0042-00			FUSE,CARTRIDGE:3AG,0.75A,250V,0.15SEC	71400	AGC-3/4
A4J1120	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025 (QUANTITY OF 4)	22526	48283-036
A4J1220	131-1003-00			CONN,RF JACK:PCB,PELTOLA;FEMALE,STR,0.141	80009	131-1003-00
A4J1221	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025 (QUANTITY OF 4)	22526	48283-036
A4J1450	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025 (QUANTITY OF 2)	22526	48283-036
A4L1020	120-0285-00			XFMR,TOROID:	0JR03	120-0285-00
A4Q1010	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A4Q1011	151-0216-00			TRANSISTOR,SIG:BIPOLAR,PNP;25V,100MA,170MHZ	04713	MPS6523
A4Q1012	151-0324-00			TRANSISTOR,PWR:BIPOLAR,PNP;80V,4.0A,2.0MHZ	04713	2N5195
A4Q1021	151-0450-00			TRANSISTOR,SIG:BIPOLAR,PNP;30V,500MA,1.3GHZ	04713	2N5583
A4Q1023	151-0472-00			TRANSISTOR,SIG:BIPOLAR,NPN;14V,80MA,1.0GHZ	62104	NE41632B
A4Q1024	151-0271-00			TRANSISTOR,SIG:BIPOLAR,PNP;15V,30MA,2.0GHZ	04713	MPSH69
A4Q1025	151-0271-00			TRANSISTOR,SIG:BIPOLAR,PNP;15V,30MA,2.0GHZ	04713	MPSH69
A4Q1030	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A4Q1031	151-0271-00			TRANSISTOR,SIG:BIPOLAR,PNP;15V,30MA,2.0GHZ	04713	MPSH69
A4Q1032	151-0472-00			TRANSISTOR,SIG:BIPOLAR,NPN;14V,80MA,1.0GHZ	62104	NE41632B
A4Q1035	151-0450-00			TRANSISTOR,SIG:BIPOLAR,PNP;30V,500MA,1.3GHZ	04713	2N5583
A4Q1100	151-0271-00			TRANSISTOR,SIG:BIPOLAR,PNP;15V,30MA,2.0GHZ	04713	MPSH69
A4Q1110	151-0216-00			TRANSISTOR,SIG:BIPOLAR,PNP;25V,100MA,170MHZ	04713	MPS6523
A4Q1130	151-0192-00			TRANSISTOR,SIG:BIPOLAR,NPN;25V,100MA,200MHZ	04713	SPS8801
A4Q1131	151-0192-00			TRANSISTOR,SIG:BIPOLAR,NPN;25V,100MA,200MHZ	04713	SPS8801
A4Q1132	151-0367-00			TRANSISTOR,SIG:BIPOLAR,NPN;25V,30MA,1.0GHZ	04713	SPS 8811
A4Q1133	151-0192-00			TRANSISTOR,SIG:BIPOLAR,NPN;25V,100MA,200MHZ	04713	SPS8801
A4Q1134	151-0192-00			TRANSISTOR,SIG:BIPOLAR,NPN;25V,100MA,200MHZ	04713	SPS8801
A4Q1135	151-0221-00			TRANSISTOR,SIG:BIPOLAR,PNP;12V,80MA	04713	MPS4258(EL8345)
A4Q1200	151-0271-00			TRANSISTOR,SIG:BIPOLAR,PNP;15V,30MA,2.0GHZ	04713	MPSH69
A4Q1201	151-0271-00			TRANSISTOR,SIG:BIPOLAR,PNP;15V,30MA,2.0GHZ	04713	MPSH69
A4Q1202	151-0424-00			TRANSISTOR:NPN,SI,TO-92	04713	MPS2369A
A4Q1203	151-0424-00			TRANSISTOR:NPN,SI,TO-92	04713	MPS2369A
A4Q1204	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A4Q1210	151-0424-00			TRANSISTOR:NPN,SI,TO-92	04713	MPS2369A
A4Q1211	151-0192-00			TRANSISTOR,SIG:BIPOLAR,NPN;25V,100MA,200MHZ	04713	SPS8801
A4Q1212	151-0192-00			TRANSISTOR,SIG:BIPOLAR,NPN;25V,100MA,200MHZ	04713	SPS8801
A4Q1213	151-0192-00			TRANSISTOR,SIG:BIPOLAR,NPN;25V,100MA,200MHZ	04713	SPS8801
A4Q1214	151-1042-02			TRANSISTOR,SIG:JFET,N-CH;6V,15MA,4.5MS (MATCHED WITH Q1215, ORDER 2 EA.)	04713	SPF627M2RLRP

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A4Q1215	151-1042-02			TRANSISTOR,SIG:JFET,N-CH;6V,15MA,4.5MS (MATCHED WITH Q1214, ORDER 2 EA.)	04713	SPF627M2RLRP
A4Q1216	151-0192-00			TRANSISTOR,SIG:BIPOLAR,NPN;25V,100MA,200MHZ	04713	SPS8801
A4Q1217	151-0424-00			TRANSISTOR:NPN,SI,TO-92	04713	MPS2369A
A4Q1220	151-0271-00			TRANSISTOR,SIG:BIPOLAR,PNP;15V,30MA,2.0GHZ	04713	MPSH69
A4Q1221	151-0271-00			TRANSISTOR,SIG:BIPOLAR,PNP;15V,30MA,2.0GHZ	04713	MPSH69
A4Q1310	151-0232-00			TRANSISTOR,SIG:BIPOLAR,NPN;45V,30MA,60MHZ	04713	2N2918
A4Q1311	151-0261-00			TRANSISTOR,SIG:BIPOLAR,PNP;60V,50MA,100MHZ	04713	2N3810
A4Q1312	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A4Q1313	151-0221-00			TRANSISTOR,SIG:BIPOLAR,PNP;12V,80MA	04713	MPS4258(EL8345)
A4Q1314	151-0424-00			TRANSISTOR:NPN,SI,TO-92	04713	MPS2369A
A4Q1315	151-0221-00			TRANSISTOR,SIG:BIPOLAR,PNP;12V,80MA	04713	MPS4258(EL8345)
A4Q1330	151-0324-00			TRANSISTOR,PWR:BIPOLAR,PNP;80V,4.0A,2.0MHZ	04713	2N5195
A4Q1331	151-0192-00			TRANSISTOR,SIG:BIPOLAR,NPN;25V,100MA,200MHZ	04713	SPS8801
A4Q1332	151-0221-00			TRANSISTOR,SIG:BIPOLAR,PNP;12V,80MA	04713	MPS4258(EL8345)
A4Q1333	151-0221-00			TRANSISTOR,SIG:BIPOLAR,PNP;12V,80MA	04713	MPS4258(EL8345)
A4Q1410	151-0192-00			TRANSISTOR,SIG:BIPOLAR,NPN;25V,100MA,200MHZ	04713	SPS8801
A4Q1411	151-0216-00			TRANSISTOR,SIG:BIPOLAR,PNP;25V,100MA,170MHZ	04713	MPS6523
A4Q1412	151-0435-00	B010210		TRANSISTOR,SIG:BIPOLAR,PNP;30V,500MA,125MHZ (CG5010 & OPTION 01 ONLY)	04713	MPSA64
A4Q1412	151-0435-00	B010330		TRANSISTOR,SIG:BIPOLAR,PNP;30V,500MA,125MHZ (CG5011 ONLY)	04713	MPSA64
A4Q1530	151-0192-00			TRANSISTOR,SIG:BIPOLAR,NPN;25V,100MA,200MHZ	04713	SPS8801
A4Q1600	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A4Q1601	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A4Q1620	151-0424-00			TRANSISTOR:NPN,SI,TO-92	04713	MPS2369A
A4R1002	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W	19701	5043CX27R00J
A4R1004	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W	19701	5043CX27R00J
A4R1006	307-0539-00			RES NTWK,FXD,FI:(7)510 OHM,10%,1W	91637	MSP08A01-511K
A4R1011	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W	57668	NTR25J-E470E
A4R1012	315-0131-00			RES,FXD,FILM:130 OHM,5%,0.25W	19701	5043CX130R0J
A4R1013	315-0240-00			RES,FXD,FILM:24 OHM,5%,0.25W (CG5010 OPTION 01 & CG5011 ONLY)	57668	NTR25J-E24E0
A4R1013	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W (CG5010 ONLY)	19701	5043CX51R00J
A4R1014	315-0131-00			RES,FXD,FILM:130 OHM,5%,0.25W	19701	5043CX130R0J
A4R1015	315-0820-00			RES,FXD,FILM:82 OHM,5%,0.25W	57668	NTR25J-E82E0
A4R1016	315-0820-00			RES,FXD,FILM:82 OHM,5%,0.25W	57668	NTR25J-E82E0
A4R1020	315-0180-00			RES,FXD,FILM:18 OHM,5%,0.25W	19701	5043CX18R00J
A4R1021	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W	19701	5043CX51R00J
A4R1022	315-0180-00			RES,FXD,FILM:18 OHM,5%,0.25W	19701	5043CX18R00J
A4R1025	315-0201-00			RES,FXD,FILM:200 OHM,5%,0.25W	57668	NTR25J-E200E
A4R1026	315-0201-00			RES,FXD,FILM:200 OHM,5%,0.25W	57668	NTR25J-E200E
A4R1030	315-0102-00	B010100	B010209	RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A4R1030	322-3193-00	B010210		RES,FXD,FILM:1K OHM,1%,0.2W (CG5010 & OPTION 01 ONLY)	91637	CCF501G10000F
A4R1030	315-0102-00	B010100	B010329	RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A4R1030	322-3193-00	B010330		RES,FXD,FILM:1K OHM,1%,0.2W (CG5011 ONLY)	91637	CCF501G10000F
A4R1031	315-0330-00			RES,FXD,FILM:33 OHM,5%,0.25W	19701	5043CX33R00J
A4R1032	315-0102-00	B010100	B010209	RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A4R1032	322-3193-00	B010210		RES,FXD,FILM:1K OHM,1%,0.2W (CG5010 & OPTION 01 ONLY)	91637	CCF501G10000F
A4R1032	315-0102-00	B010100	B010329	RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A4R1032	322-3193-00	B010330		RES,FXD,FILM:1K OHM,1%,0.2W (CG5011 ONLY)	91637	CCF501G10000F

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A4R1033	315-0330-00			RES,FXD,FILM:33 OHM,5%,0.25W	19701	5043CX33R00J
A4R1034	315-0220-00			RES,FXD,FILM:22 OHM,5%,0.25W	19701	5043CX22R00J
A4R1035	315-0511-00	B010100	B010209	RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A4R1035	322-3165-00	B010210		RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G511ROF
A4R1035	315-0511-00	B010100	B010329	RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A4R1035	322-3165-00	B010330		RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G511ROF
A4R1036	315-0511-00	B010100	B010209	RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A4R1036	322-3165-00	B010210		RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G511ROF
A4R1036	315-0511-00	B010100	B010329	RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A4R1036	322-3165-00	B010330		RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G511ROF
A4R1037	308-0387-00			RES,FXD,WW:178 OHM,1%,3W	91637	RS2B-B178ROF
A4R1038	315-0331-00			RES,FXD,FILM:330 OHM,5%,0.25W	57668	NTR25J-E330E
A4R1039	315-0103-00	B010100	B010209	RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A4R1039	322-3289-00	B010210		RES,FXD,FILM:10K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF50G10001F
A4R1039	315-0103-00	B010100	B010329	RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A4R1039	322-3289-00	B010330		RES,FXD,FILM:10K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF50G10001F
A4R1101	307-0526-00			RES NTWK,FXD,FI:5,510 OHM,10%,0.125W	91637	CSC06A01-511J-D03
A4R1110	315-0202-00	B010100	B010209	RES,FXD,FILM:2K OHM,5%,0.25W	57668	NTR25J-E 2K
A4R1110	322-3222-00	B010210		RES,FXD,FILM:2K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G20000F
A4R1110	315-0202-00	B010100	B010329	RES,FXD,FILM:2K OHM,5%,0.25W	57668	NTR25J-E 2K
A4R1110	322-3222-00	B010330		RES,FXD,FILM:2K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G20000F
A4R1111	307-0526-00			RES NTWK,FXD,FI:5,510 OHM,10%,0.125W	91637	CSC06A01-511J-D03
A4R1120	315-0243-00	B010100	B010209	RES,FXD,FILM:24K OHM,5%,0.25W	57668	NTR25J-E24K0
A4R1120	322-3326-00	B010210		RES,FXD,FILM:24.3K OHM,1%,0.2W,TC-T0 (CG5010 & OPTION 01 ONLY)	91637	CCF50-2F24301F
A4R1120	315-0243-00	B010100	B010329	RES,FXD,FILM:24K OHM,5%,0.25W	57668	NTR25J-E24K0
A4R1120	322-3326-00	B010330		RES,FXD,FILM:24.3K OHM,1%,0.2W,TC-T0 (CG5011 ONLY)	91637	CCF50-2F24301F
A4R1121	315-0243-00	B010100	B010209	RES,FXD,FILM:24K OHM,5%,0.25W	57668	NTR25J-E24K0
A4R1121	322-3326-00	B010210		RES,FXD,FILM:24.3K OHM,1%,0.2W,TC-T0 (CG5010 & OPTION 01 ONLY)	91637	CCF50-2F24301F
A4R1121	315-0243-00	B010100	B010329	RES,FXD,FILM:24K OHM,5%,0.25W	57668	NTR25J-E24K0
A4R1121	322-3326-00	B010330		RES,FXD,FILM:24.3K OHM,1%,0.2W,TC-T0 (CG5011 ONLY)	91637	CCF50-2F24301F
A4R1122	315-0511-00	B010100	B010209	RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A4R1122	322-3165-00	B010210		RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G511ROF
A4R1122	315-0511-00	B010100	B010329	RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A4R1122	322-3165-00	B010330		RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G511ROF
A4R1123	315-0511-00	B010100	B010209	RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A4R1123	322-3165-00	B010210		RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G511ROF
A4R1123	315-0511-00	B010100	B010329	RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A4R1123	322-3165-00	B010330		RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G511ROF
A4R1124	315-0220-00			RES,FXD,FILM:22 OHM,5%,0.25W	19701	5043CX22R00J

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A4R1130	315-0182-00	B010100	B010209	RES,FXD,FILM:1.8K OHM,5%,0.25W	57668	NTR25J-E1K8
A4R1130	322-3218-00	B010210		RES,FXD,FILM:1.82K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G18200F
A4R1130	315-0182-00	B010100	B010329	RES,FXD,FILM:1.8K OHM,5%,0.25W	57668	NTR25J-E1K8
A4R1130	322-3218-00	B010330		RES,FXD,FILM:1.82K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G18200F
A4R1131	315-0181-00			RES,FXD,FILM:180 OHM,5%,0.25W	57668	NTR25J-E180E
A4R1132	315-0473-00	B010100	B010209	RES,FXD,FILM:47K OHM,5%,0.25W	57668	NTR25J-E47K0
A4R1132	322-3354-00	B010210		RES,FXD,FILM:47.5K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G47501F
A4R1132	315-0473-00	B010100	B010329	RES,FXD,FILM:47K OHM,5%,0.25W	57668	NTR25J-E47K0
A4R1132	322-3354-00	B010330		RES,FXD,FILM:47.5K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G47501F
A4R1133	315-0223-00	B010100	B010209	RES,FXD,FILM:22K OHM,5%,0.25W	19701	5043CX22K00J92U
A4R1133	322-3322-00	B010210		RES,FXD,FILM:22.1K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G22101F
A4R1133	315-0223-00	B010100	B010329	RES,FXD,FILM:22K OHM,5%,0.25W	19701	5043CX22K00J92U
A4R1133	322-3322-00	B010330		RES,FXD,FILM:22.1K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G22101F
A4R1134	315-0473-00	B010100	B010209	RES,FXD,FILM:47K OHM,5%,0.25W	57668	NTR25J-E47K0
A4R1134	322-3354-00	B010210		RES,FXD,FILM:47.5K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G47501F
A4R1134	315-0473-00	B010100	B010329	RES,FXD,FILM:47K OHM,5%,0.25W	57668	NTR25J-E47K0
A4R1134	322-3354-00	B010330		RES,FXD,FILM:47.5K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G47501F
A4R1137	315-0101-00	B010100	B010209	RES,FXD,FILM:100 OHM,5%,0.25W	57668	NTR25J-E 100E
A4R1137	322-3097-00	B010210		RES,FXD,FILM:100 OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G100R0F
A4R1137	315-0101-00	B010100	B010329	RES,FXD,FILM:100 OHM,5%,0.25W	57668	NTR25J-E 100E
A4R1137	322-3097-00	B010330		RES,FXD,FILM:100 OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G100R0F
A4R1138	315-0681-00	B010100	B010209	RES,FXD,FILM:680 OHM,5%,0.25W	57668	NTR25J-E680E
A4R1138	322-3177-00	B010210		RES,FXD,FILM:681 OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF50-2G681R0F
A4R1138	315-0681-00	B010100	B010329	RES,FXD,FILM:680 OHM,5%,0.25W	57668	NTR25J-E680E
A4R1138	322-3177-00	B010330		RES,FXD,FILM:681 OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF50-2G681R0F
A4R1139	315-0431-00			RES,FXD,FILM:430 OHM,5%,0.25W	19701	5043CX430R0J
A4R1200	315-0102-00	B010100	B010209	RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A4R1200	322-3193-00	B010210		RES,FXD,FILM:1K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G10000F
A4R1200	315-0102-00	B010100	B010329	RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A4R1200	322-3193-00	B010330		RES,FXD,FILM:1K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G10000F
A4R1201	315-0102-00	B010100	B010209	RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A4R1201	322-3193-00	B010210		RES,FXD,FILM:1K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G10000F
A4R1201	315-0102-00	B010100	B010329	RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A4R1201	322-3193-00	B010330		RES,FXD,FILM:1K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G10000F
A4R1202	315-0750-00			RES,FXD,FILM:75 OHM,5%,0.25W	57668	NTR25J-E75E0
A4R1203	315-0750-00			RES,FXD,FILM:75 OHM,5%,0.25W	57668	NTR25J-E75E0
A4R1204	315-0561-00	B010100	B010209	RES,FXD,FILM:560 OHM,5%,0.25W	19701	5043CX560R0J
A4R1204	322-3169-00	B010210		RES,FXD,FILM:562 OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF50-2F562R0F
A4R1204	315-0561-00	B010100	B010329	RES,FXD,FILM:560 OHM,5%,0.25W	19701	5043CX560R0J
A4R1204	322-3169-00	B010330		RES,FXD,FILM:562 OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF50-2F562R0F

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A4R1205	315-0751-00	B010100	B010209	RES,FXD,FILM:750 OHM,5%,0.25W	57668	NTR25J-E750E
A4R1205	322-3181-00	B010210		RES,FXD,FILM:750 OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G750R0F
A4R1205	315-0751-00	B010100	B010329	RES,FXD,FILM:750 OHM,5%,0.25W	57668	NTR25J-E750E
A4R1205	322-3181-00	B010330		RES,FXD,FILM:750 OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G750R0F
A4R1206	321-0193-00			RES,FXD,FILM:1K OHM,1%,0.125W,TC=T0	91637	CMF55116G10000F
A4R1207	321-0193-00			RES,FXD,FILM:1K OHM,1%,0.125W,TC=T0	91637	CMF55116G10000F
A4R1208	315-0302-00	B010100	B010209	RES,FXD,FILM:3K OHM,5%,0.25W	57668	NTR25J-E03K0
A4R1208	322-3239-00	B010210		RES,FXD,FILM:3.01K OHM,1%,0.2W,TC=T0 (CG5010 OPTION 01 ONLY)	91637	CCF501G30100F
A4R1208	315-0302-00	B010100	B010329	RES,FXD,FILM:3K OHM,5%,0.25W	57668	NTR25J-E03K0
A4R1208	322-3239-00	B010330		RES,FXD,FILM:3.01K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G30100F
A4R1209	315-0111-00			RES,FXD,FILM:110 OHM,5%,0.25W	57668	NTR25J-E110E
A4R1210	315-0102-00	B010100	B010209	RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A4R1210	322-3193-00	B010210		RES,FXD,FILM:1K OHM,1%,0.2W (CG5010 & OPTION 01 ONLY)	91637	CCF501G10000F
A4R1210	315-0102-00	B010100	B010329	RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A4R1210	322-3193-00	B010330		RES,FXD,FILM:1K OHM,1%,0.2W (CG5011 ONLY)	91637	CCF501G10000F
A4R1211	315-0752-00	B010100	B010209	RES,FXD,FILM:7.5K OHM,5%,0.25W	57668	NTR25J-E07K5
A4R1211	322-3277-00	B010210		RES,FXD,FILM:7.5K OHM,1%,0.2W (CG5010 & OPTION 01 ONLY)	91637	CCF501G75000F
A4R1211	315-0752-00	B010100	B010329	RES,FXD,FILM:7.5K OHM,5%,0.25W	57668	NTR25J-E07K5
A4R1211	322-3277-00	B010330		RES,FXD,FILM:7.5K OHM,1%,0.2W (CG5011 ONLY)	91637	CCF501G75000F
A4R1212	315-0432-00	B010100	B010209	RES,FXD,FILM:4.3K OHM,5%,0.25W	57668	NTR25J-E04K3
A4R1212	322-3254-00	B010210		RES,FXD,FILM:4.32K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF502G4321FT
A4R1212	315-0432-00	B010100	B010329	RES,FXD,FILM:4.3K OHM,5%,0.25W	57668	NTR25J-E04K3
A4R1212	322-3254-00	B010330		RES,FXD,FILM:4.32K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF502G4321FT
A4R1213	315-0432-00	B010100	B010209	RES,FXD,FILM:4.3K OHM,5%,0.25W	57668	NTR25J-E04K3
A4R1213	322-3254-00	B010210		RES,FXD,FILM:4.32K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF502G4321FT
A4R1213	315-0432-00	B010100	B010329	RES,FXD,FILM:4.3K OHM,5%,0.25W	57668	NTR25J-E04K3
A4R1213	322-3254-00	B010330		RES,FXD,FILM:4.32K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF502G4321FT
A4R1214	315-0473-00	B010100	B010209	RES,FXD,FILM:47K OHM,5%,0.25W	57668	NTR25J-E47K0
A4R1214	322-3354-00	B010210		RES,FXD,FILM:47.5K OHM,1%,0.2W,TC=T0 (CG5010 7 OPTION 01 ONLY)	91637	CCF501G47501F
A4R1214	315-0473-00	B010100	B010329	RES,FXD,FILM:47K OHM,5%,0.25W	57668	NTR25J-E47K0
A4R1214	322-3354-00	B010330		RES,FXD,FILM:47.5K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G47501F
A4R1215	315-0332-00	B010100	B010209	RES,FXD,FILM:3.3K OHM,5%,0.25W	57668	NTR25J-E03K3
A4R1215	322-3243-00	B010210		RES,FXD,FILM:3.32K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF50-1-G33200F
A4R1215	315-0332-00	B010100	B010329	RES,FXD,FILM:3.3K OHM,5%,0.25W	57668	NTR25J-E03K3
A4R1215	322-3243-00	B010330		RES,FXD,FILM:3.32K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF50-1-G33200F
A4R1216	315-0332-00	B010100	B010209	RES,FXD,FILM:3.3K OHM,5%,0.25W	57668	NTR25J-E03K3
A4R1216	322-3243-00	B010210		RES,FXD,FILM:3.32K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF50-1-G33200F
A4R1216	315-0332-00	B010100	B010329	RES,FXD,FILM:3.3K OHM,5%,0.25W	57668	NTR25J-E03K3
A4R1216	322-3243-00	B010330		RES,FXD,FILM:3.32K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF50-1-G33200F

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A4R1217	315-0242-00			RES,FXD,FILM:2.4K OHM,5%,0.25W	57668	NTR25J-E02K4
A4R1218	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W	57668	NTR25J-E470E
A4R1219	315-0271-00			RES,FXD,FILM:270 OHM,5%,0.25W	57668	NTR25J-E270E
A4R1220	315-0430-00			RES,FXD,FILM:43 OHM,5%,0.25W	19701	5043CX43R00J
A4R1221	315-0222-00	B010100	B010209	RES,FXD,FILM:2.2K OHM,5%,0.25W	57668	NTR25J-E02K2
A4R1221	322-3226-00	B010210		RES,FXD,FILM:2.21K OHM,1%,0.2W (CG5010 & OPTION 01 ONLY)	91637	CCF501G22100F
A4R1221	315-0222-00	B010100	B010329	RES,FXD,FILM:2.2K OHM,5%,0.25W	57668	NTR25J-E02K2
A4R1221	322-3226-00	B010330		RES,FXD,FILM:2.21K OHM,1%,0.2W (CG5011 ONLY)	91637	CCF501G22100F
A4R1222	315-0222-00	B010100	B010209	RES,FXD,FILM:2.2K OHM,5%,0.25W	57668	NTR25J-E02K2
A4R1222	322-3226-00	B010210		RES,FXD,FILM:2.21K OHM,1%,0.2W (CG5010 & OPTION 01 ONLY)	91637	CCF501G22100F
A4R1222	315-0222-00	B010100	B010329	RES,FXD,FILM:2.2K OHM,5%,0.25W	57668	NTR25J-E02K2
A4R1222	322-3226-00	B010330		RES,FXD,FILM:2.21K OHM,1%,0.2W (CG5011 ONLY)	91637	CCF501G22100F
A4R1223	315-0222-00	B010100	B010209	RES,FXD,FILM:2.2K OHM,5%,0.25W	57668	NTR25J-E02K2
A4R1223	322-3226-00	B010210		RES,FXD,FILM:2.21K OHM,1%,0.2W (CG5010 & OPTION 01 ONLY)	91637	CCF501G22100F
A4R1223	315-0222-00	B010100	B010329	RES,FXD,FILM:2.2K OHM,5%,0.25W	57668	NTR25J-E02K2
A4R1223	322-3226-00	B010330		RES,FXD,FILM:2.21K OHM,1%,0.2W (CG5011 ONLY)	91637	CCF501G22100F
A4R1224	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W	19701	5043CX51R00J
A4R1225	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W	19701	5043CX51R00J
A4R1226	315-0511-00	B010100	B010209	RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A4R1226	322-3165-00	B010210		RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G511R0F
A4R1226	315-0511-00	B010100	B010329	RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A4R1226	322-3165-00	B010330		RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G511R0F
A4R1227	315-0911-00	B010100	B010209	RES,FXD,FILM:910 OHM,5%,0.25W	57668	NTR25J-E910E
A4R1227	322-3189-00	B010210		RES,FXD,FILM:909 OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G909F0R
A4R1227	315-0911-00	B010100	B010329	RES,FXD,FILM:910 OHM,5%,0.25W	57668	NTR25J-E910E
A4R1227	322-3189-00	B010330		RES,FXD,FILM:909 OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G909F0R
A4R1228	315-0911-00	B010100	B010209	RES,FXD,FILM:910 OHM,5%,0.25W	57668	NTR25J-E910E
A4R1228	322-3189-00	B010210		RES,FXD,FILM:909 OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G909F0R
A4R1228	315-0911-00	B010100	B010329	RES,FXD,FILM:910 OHM,5%,0.25W	57668	NTR25J-E910E
A4R1228	322-3189-00	B010330		RES,FXD,FILM:909 OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G909F0R
A4R1230	315-0272-00			RES,FXD,FILM:2.7K OHM,5%,0.25W	57668	NTR25J-E02K7
A4R1231	315-0682-00	B010100	B010209	RES,FXD,FILM:6.8K OHM,5%,0.25W	57668	NTR25J-E06K8
A4R1231	322-3273-00	B010210		RES,FXD,FILM:6.81K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF50-2-G68100F
A4R1231	315-0682-00	B010100	B010329	RES,FXD,FILM:6.8K OHM,5%,0.25W	57668	NTR25J-E06K8
A4R1231	322-3273-00	B010330		RES,FXD,FILM:6.81K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF50-2-G68100F
A4R1232	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W	19701	5043CX51R00J
A4R1233	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W	57668	NTR25J-E470E
A4R1234	315-0223-00	B010100	B010209	RES,FXD,FILM:22K OHM,5%,0.25W	19701	5043CX22K00J92U
A4R1234	322-3322-00	B010210		RES,FXD,FILM:22.1K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G22101F
A4R1234	315-0223-00	B010100	B010329	RES,FXD,FILM:22K OHM,5%,0.25W	19701	5043CX22K00J92U
A4R1234	322-3322-00	B010330		RES,FXD,FILM:22.1K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G22101F

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A4R1235	315-0473-00	B010100	B010209	RES,FXD,FILM:47K OHM,5%,0.25W	57668	NTR25J-E47K0
A4R1235	322-3354-00	B010210		RES,FXD,FILM:47.5K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G47501F
A4R1235	315-0473-00	B010100	B010329	RES,FXD,FILM:47K OHM,5%,0.25W	57668	NTR25J-E47K0
A4R1235	322-3354-00	B010330		RES,FXD,FILM:47.5K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G47501F
A4R1236	315-0511-00	B010100	B010209	RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A4R1236	322-3165-00	B010210		RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G511R0F
A4R1236	315-0511-00	B010100	B010329	RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A4R1236	322-3165-00	B010330		RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G511R0F
A4R1237	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W	57668	NTR25J-E470E
A4R1238	315-0302-00	B010100	B010209	RES,FXD,FILM:3K OHM,5%,0.25W	57668	NTR25J-E03K0
A4R1238	322-3222-00	B010210		RES,FXD,FILM:2K OHM,1%,0.2W (CG5010 & OPTION 01 ONLY)	91637	CCF501G20000F
A4R1238	315-0302-00	B010100	B010329	RES,FXD,FILM:3K OHM,5%,0.25W	57668	NTR25J-E03K0
A4R1238	322-3222-00	B010330		RES,FXD,FILM:2K OHM,1%,0.2W (CG5011 ONLY)	91637	CCF501G20000F
A4R1300	315-0391-00			RES,FXD,FILM:390 OHM,5%,0.25W	57668	NTR25J-E390E
A4R1301	315-0102-00	B010100	B010209	RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A4R1301	322-3193-00	B010210		RES,FXD,FILM:1K OHM,1%,0.2W (CG5010 & OPTION 01 ONLY)	91637	CCF501G10000F
A4R1301	315-0102-00	B010100	B010329	RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A4R1301	322-3193-00	B010330		RES,FXD,FILM:1K OHM,1%,0.2W (CG5011 ONLY)	91637	CCF501G10000F
A4R1302	315-0272-00			RES,FXD,FILM:2.7K OHM,5%,0.25W	57668	NTR25J-E02K7
A4R1303	315-0562-00	B010100	B010209	RES,FXD,FILM:5.6K OHM,5%,0.25W	57668	NTR25J-E05K6
A4R1303	322-3265-00	B010210		RES,FXD,FILM:5.62K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G56200F
A4R1303	315-0562-00	B010100	B010329	RES,FXD,FILM:5.6K OHM,5%,0.25W	57668	NTR25J-E05K6
A4R1303	322-3265-00	B010330		RES,FXD,FILM:5.62K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G56200F
A4R1304	315-0123-00	B010100	B010209	RES,FXD,FILM:12K OHM,5%,0.25W	57668	NTR25J-E12K0
A4R1304	322-3297-00	B010210		RES,FXD,FILM:12.1K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G12101F
A4R1304	315-0123-00	B010100	B010329	RES,FXD,FILM:12K OHM,5%,0.25W	57668	NTR25J-E12K0
A4R1304	322-3297-00	B010330		RES,FXD,FILM:12.1K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G12101F
A4R1305	315-0303-00	B010100	B010209	RES,FXD,FILM:30K OHM,5%,0.25W	19701	5043CX30K00J
A4R1305	322-3335-00	B010210		RES,FXD,FILM:30.1K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G30101F
A4R1305	315-0303-00	B010100	B010329	RES,FXD,FILM:30K OHM,5%,0.25W	19701	5043CX30K00J
A4R1305	322-3335-00	B010330		RES,FXD,FILM:30.1K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G30101F
A4R1306	321-0193-00			RES,FXD,FILM:1K OHM,1%,0.125W,TC=T0	91637	CMF55116G10000F
A4R1307	321-0193-00			RES,FXD,FILM:1K OHM,1%,0.125W,TC=T0	91637	CMF55116G10000F
A4R1308	321-0126-00			RES,FXD,FILM:200 OHM,1%,0.125W,TC=T0	91637	CMF55116G200R0F
A4R1309	321-0126-00			RES,FXD,FILM:200 OHM,1%,0.125W,TC=T0	91637	CMF55116G200R0F
A4R1310	315-0152-00	B010100	B010209	RES,FXD,FILM:1.5K OHM,5%,0.25W	57668	NTR25J-E01K5
A4R1310	322-3210-00	B010210		RES,FXD,FILM:1.5K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G15000F
A4R1310	315-0152-00	B010100	B010329	RES,FXD,FILM:1.5K OHM,5%,0.25W	57668	NTR25J-E01K5
A4R1310	322-3210-00	B010330		RES,FXD,FILM:1.5K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G15000F

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A4R1311	315-0332-00	B010100	B010209	RES,FXD,FILM:3.3K OHM,5%,0.25W	57668	NTR25J-E03K3
A4R1311	322-3243-00	B010210		RES,FXD,FILM:3.32K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF50-1-G33200F
A4R1311	315-0332-00	B010100	B010329	RES,FXD,FILM:3.3K OHM,5%,0.25W	57668	NTR25J-E03K3
A4R1311	322-3243-00	B010330		RES,FXD,FILM:3.32K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF50-1-G33200F
A4R1312	315-0122-00	B010100	B010209	RES,FXD,FILM:1.2K OHM,5%,0.25W	57668	NTR25J-E01K2
A4R1312	322-3201-00	B010210		RES,FXD,FILM:1.21K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G12100F
A4R1312	315-0122-00	B010100	B010329	RES,FXD,FILM:1.2K OHM,5%,0.25W	57668	NTR25J-E01K2
A4R1312	322-3201-00	B010330		RES,FXD,FILM:1.21K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G12100F
A4R1313	315-0102-00	B010100	B010209	RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A4R1313	322-3193-00	B010210		RES,FXD,FILM:1K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G10000F
A4R1313	315-0102-00	B010100	B010329	RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A4R1313	322-3193-00	B010330		RES,FXD,FILM:1K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G10000F
A4R1320	315-0472-00	B010100	B010209	RES,FXD,FILM:4.7K OHM,5%,0.25W	57668	NTR25J-E04K7
A4R1320	322-3258-00	B010210		RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	56845	CCF50-2-G4751FT
A4R1320	315-0472-00	B010100	B010329	RES,FXD,FILM:4.7K OHM,5%,0.25W	57668	NTR25J-E04K7
A4R1320	322-3258-00	B010330		RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	56845	CCF50-2-G4751FT
A4R1330	307-0111-00			RES,FXD,CMPSN:3.6 OHM,5%,0.25W	01121	CB36G5 CARD PACK
A4R1331	315-0361-00			RES,FXD,FILM:360 OHM,5%,0.25W	19701	5043CX360R0J
A4R1332	315-0511-00	B010100	B010209	RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A4R1332	322-3165-00	B010210		RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G511R0F
A4R1332	315-0511-00	B010100	B010329	RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A4R1332	322-3165-00	B010330		RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G511R0F
A4R1333	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W	57668	NTR25J-E470E
A4R1334	321-0150-00			RES,FXD,FILM:357 OHM,1%,0.125W,TC=T0	91637	CMF55116G357R0F
A4R1335	321-0287-00			RES,FXD,FILM:9.53K OHM,1%,0.125W,TC=T0	91637	CMF55116G95300F
A4R1400	311-1238-00	B010100	B010209	RES,VAR,NONWW:TRMR,5K OHM,0.5W	32997	3386X-DY6-502
A4R1400	311-2271-00	B010210		RES,VAR,NONWW:TRMR,5K OHM,20%,0.5WLINEAR (CG5010 & OPTION 01 ONLY)	TK2073	GF06VT2 502 M L20
A4R1400	311-1238-00	B010100	B010329	RES,VAR,NONWW:TRMR,5K OHM,0.5W	32997	3386X-DY6-502
A4R1400	311-2271-00	B010330		RES,VAR,NONWW:TRMR,5K OHM,20%,0.5WLINEAR (CG5011 ONLY)	TK2073	GF06VT2 502 M L20
A4R1401	315-0202-00	B010100	B010209	RES,FXD,FILM:2K OHM,5%,0.25W	57668	NTR25J-E 2K
A4R1401	322-3222-00	B010210		RES,FXD,FILM:2K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G20000F
A4R1401	315-0202-00	B010100	B010329	RES,FXD,FILM:2K OHM,5%,0.25W	57668	NTR25J-E 2K
A4R1401	322-3222-00	B010330		RES,FXD,FILM:2K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G20000F
A4R1402	315-0472-00	B010100	B010209	RES,FXD,FILM:4.7K OHM,5%,0.25W	57668	NTR25J-E04K7
A4R1402	322-3258-00	B010210		RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	56845	CCF50-2-G4751FT
A4R1402	315-0472-00	B010100	B010329	RES,FXD,FILM:4.7K OHM,5%,0.25W	57668	NTR25J-E04K7
A4R1402	322-3258-00	B010330		RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	56845	CCF50-2-G4751FT

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A4R1403	315-0472-00	B010100	B010209	RES,FXD,FILM:4.7K OHM,5%,0.25W	57668	NTR25J-E04K7
A4R1403	322-3258-00	B010210		RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	56845	CCF50-2-G4751FT
A4R1403	315-0472-00	B010100	B010329	RES,FXD,FILM:4.7K OHM,5%,0.25W	57668	NTR25J-E04K7
A4R1403	322-3258-00	B010330		RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	56845	CCF50-2-G4751FT
A4R1404	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W	57668	NTR25J-E470E
A4R1410	315-0241-00			RES,FXD,FILM:240 OHM,5%,0.25W	19701	5043CX240R0J
A4R1411	315-0302-00	B010100	B010209	RES,FXD,FILM:3K OHM,5%,0.25W	57668	NTR25J-E03K0
A4R1411	322-3239-00	B010210		RES,FXD,FILM:3.01K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G30100F
A4R1411	315-0302-00	B010100	B010329	RES,FXD,FILM:3K OHM,5%,0.25W	57668	NTR25J-E03K0
A4R1411	322-3239-00	B010330		RES,FXD,FILM:3.01K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G30100F
A4R1412	315-0183-00	B010100	B010209	RES,FXD,FILM:18K OHM,5%,0.25W	19701	5043CX18K00J
A4R1412	322-3314-00	B010210		RES,FXD,FILM:18.2K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G18201F
A4R1412	315-0183-00	B010100	B010329	RES,FXD,FILM:18K OHM,5%,0.25W	19701	5043CX18K00J
A4R1412	322-3314-00	B010330		RES,FXD,FILM:18.2K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G18201F
A4R1413	315-0473-00	B010100	B010209	RES,FXD,FILM:47K OHM,5%,0.25W	57668	NTR25J-E47K0
A4R1413	322-3354-00	B010210		RES,FXD,FILM:47.5K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G47501F
A4R1413	315-0473-00	B010100	B010329	RES,FXD,FILM:47K OHM,5%,0.25W	57668	NTR25J-E47K0
A4R1413	322-3354-00	B010330		RES,FXD,FILM:47.5K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G47501F
A4R1414	315-0101-00	B010100	B010209	RES,FXD,FILM:100 OHM,5%,0.25W	57668	NTR25J-E 100E
A4R1414	322-3097-00	B010210		RES,FXD,FILM:100 OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G100R0F
A4R1414	315-0101-00	B010100	B010329	RES,FXD,FILM:100 OHM,5%,0.25W	57668	NTR25J-E 100E
A4R1414	322-3097-00	B010330		RES,FXD,FILM:100 OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G100R0F
A4R1415	315-0184-00	B010100	B010209	RES,FXD,FILM:180K OHM,5%,0.25W	19701	5043CX180K0J
A4R1415	322-3409-00	B010210		RES,FXD,FILM:178K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF50G17802F
A4R1415	315-0184-00	B010100	B010329	RES,FXD,FILM:180K OHM,5%,0.25W	19701	5043CX180K0J
A4R1415	322-3409-00	B010330		RES,FXD,FILM:178K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF50G17802F
A4R1416	322-3193-00	B010210		RES,FXD,FILM:1K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G10000F
A4R1416	322-3193-00	B010330		RES,FXD,FILM:1K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G10000F
A4R1417	322-3097-00	B010210		RES,FXD,FILM:100 OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G100R0F
A4R1417	322-3097-00	B010330		RES,FXD,FILM:100 OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G100R0F
A4R1418	322-3258-00	B010210		RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	56845	CCF50-2-G4751FT
A4R1418	322-3258-00	B010330		RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	56845	CCF50-2-G4751FT
A4R1430	315-0202-00	B010100	B010209	RES,FXD,FILM:2K OHM,5%,0.25W	57668	NTR25J-E 2K
A4R1430	322-3193-00	B010210		RES,FXD,FILM:1K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G10000F
A4R1430	315-0202-00	B010100	B010329	RES,FXD,FILM:2K OHM,5%,0.25W	57668	NTR25J-E 2K
A4R1430	322-3193-00	B010330		RES,FXD,FILM:1K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G10000F

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A4R1431	315-0473-00	B010100	B010209	RES,FXD,FILM:47K OHM,5%,0.25W	57668	NTR25J-E47K0
A4R1431	322-3354-00	B010210		RES,FXD,FILM:47.5K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G47501F
A4R1431	315-0473-00	B010100	B010329	RES,FXD,FILM:47K OHM,5%,0.25W	57668	NTR25J-E47K0
A4R1431	322-3354-00	B010210		RES,FXD,FILM:47.5K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G47501F
A4R1432	315-0511-00	B010100	B010209	RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A4R1432	322-3165-00	B010210		RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G511R0F
A4R1432	315-0511-00	B010100	B010329	RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A4R1432	322-3165-00	B010330		RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G511R0F
A4R1433	315-0102-00	B010100	B010209	RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A4R1433	322-3193-00	B010210		RES,FXD,FILM:1K OHM,1%,0.2W,TC=T0 (TEST SELECTABLE, NOMINAL VALUE) (CG5010 & OPTION 01 ONLY)	91637	CCF501G10000F
A4R1433	315-0102-00	B010100	B010329	RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A4R1433	322-3193-00	B010330		RES,FXD,FILM:1K OHM,1%,0.2W,TC=T0 (TEST SELECTABLE, NOMINAL VALUE) (CG5011 ONLY)	91637	CCF501G10000F
A4R1510	315-0332-00	B010100	B010209	RES,FXD,FILM:3.3K OHM,5%,0.25W	57668	NTR25J-E03K3
A4R1510	322-3243-00	B010210		RES,FXD,FILM:3.32K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF50-1-G33200F
A4R1510	315-0332-00	B010100	B010329	RES,FXD,FILM:3.3K OHM,5%,0.25W	57668	NTR25J-E03K3
A4R1510	322-3243-00	B010330		RES,FXD,FILM:3.32K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF50-1-G33200F
A4R1511	315-0472-00	B010100	B010209	RES,FXD,FILM:4.7K OHM,5%,0.25W	57668	NTR25J-E04K7
A4R1511	322-3258-00	B010210		RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	56845	CCF50-2-G4751FT
A4R1511	315-0472-00	B010100	B010329	RES,FXD,FILM:4.7K OHM,5%,0.25W	57668	NTR25J-E04K7
A4R1511	322-3258-00	B010330		RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	56845	CCF50-2-G4751FT
A4R1530	315-0473-00	B010100	B010209	RES,FXD,FILM:47K OHM,5%,0.25W	57668	NTR25J-E47K0
A4R1530	322-3354-00	B010210		RES,FXD,FILM:47.5K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G47501F
A4R1530	315-0473-00	B010100	B010329	RES,FXD,FILM:47K OHM,5%,0.25W	57668	NTR25J-E47K0
A4R1530	322-3354-00	B010330		RES,FXD,FILM:47.5K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G47501F
A4R1531	315-0102-00	B010100	B010209	RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A4R1531	322-3193-00	B010210		RES,FXD,FILM:1K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G10000F
A4R1531	315-0102-00	B010100	B010329	RES,FXD,FILM:1K OHM,5%,0.25W	57668	NTR25JE01K0
A4R1531	322-3193-00	B010330		RES,FXD,FILM:1K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G10000F
A4R1601	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W	57668	NTR25J-E470E
A4R1610	315-0332-00	B010100	B010209	RES,FXD,FILM:3.3K OHM,5%,0.25W	57668	NTR25J-E03K3
A4R1610	322-3243-00	B010210		RES,FXD,FILM:3.32K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF50-1-G33200F
A4R1610	315-0332-00	B010100	B010329	RES,FXD,FILM:3.3K OHM,5%,0.25W	57668	NTR25J-E03K3
A4R1610	322-3243-00	B010330		RES,FXD,FILM:3.32K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF50-1-G33200F
A4R1611	315-0822-00	B010100	B010209	RES,FXD,FILM:8.2K OHM,5%,0.25W	19701	5043CX8K200J
A4R1611	322-3281-00	B010210		RES,FXD,FILM:8.25K OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF501G82500F
A4R1611	315-0822-00	B010100	B010329	RES,FXD,FILM:8.2K OHM,5%,0.25W	19701	5043CX8K200J
A4R1611	322-3281-00	B010330		RES,FXD,FILM:8.25K OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF501G82500F

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A4R1620	315-0331-00			RES,FXD,FILM:330 OHM,5%,0.25W	57668	NTR25J-E330E
A4R1621	315-0151-00			RES,FXD,FILM:150 OHM,5%,0.25W	57668	NTR25J-E150E
A4R1622	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W	57668	NTR25J-E470E
A4R1623	321-0331-00			RES,FXD,FILM:27.4K OHM,1%,0.125W,TC=TO	91637	CMF55116G27401F
A4R1624	321-0371-00			RES,FXD,FILM:71.5K OHM,1%,0.125W,TC=TO	91637	CMF55116G71501F
A4R1625	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W	57668	NTR25J-E470E
A4R1626	307-0659-00			RES,FXD,FILM:2.2 OHM,5%,0.25W	11502	TF07 2.2 OHM
A4R1627	307-0093-00			RES,FXD,CMPSN:1.2 OHM,5%,0.5W	01121	EB12G5
A4TP1010	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,:MALE,STR,0.025	22526	48283-036
A4TP1020	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,:MALE,STR,0.025	22526	48283-036
A4TP1200	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,:MALE,STR,0.025	22526	48283-036
A4TP1400	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,:MALE,STR,0.025	22526	48283-036
A4TP1401	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,:MALE,STR,0.025	22526	48283-036
A4TP1410	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,:MALE,STR,0.025	22526	48283-036
A4TP1501	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,:MALE,STR,0.025	22526	48283-036
A4TP1620	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,:MALE,STR,0.025	22526	48283-036
A4TP1630	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,:MALE,STR,0.025	22526	48283-036
A4U1001	156-0369-00			IC,DIGITAL:ECL,RECEIVER;HIGH SPEED TRIPLE	04713	MC10216 P OR L
A4U1010	156-0282-00			IC,DIGITAL:ECL,GATE;DUAL 4-INPUT OR/NOR	04713	MC1660L
A4U1101	156-0642-00			IC,DIGITAL:ECL,COUNTER;BI-QUINARY;10138	04713	MC10138P
A4U1102	156-0870-01			IC,DIGITAL:ECL,COUNTER;DECADE UP, WITH	27014	10010
A4U1110	156-0205-00			IC,DIGITAL:ECL,GATE;QUAD 2-INPUT OR;10102	04713	MC10102(P OR L)
A4U1111	156-0205-00			IC,DIGITAL:ECL,GATE;QUAD 2-INPUT OR;10102	04713	MC10102(P OR L)
A4U1120	156-0480-00			IC,DIGITAL:LSTTL,GATES;QUAD 2-INPUT AND	01295	SN74LS08N
A4U1220	156-0384-00			IC,DIGITAL:LSTTL,GATES;QUAD 2-INPUT NAND	01295	SN74LS03N
A4U1230	156-0788-00			IC,DIGITAL:LSTTL,COUNTER;SYNCH 4-BIT DECADE	01295	SN74LS162(N OR J)
A4U1231	156-0788-00			IC,DIGITAL:LSTTL,COUNTER;SYNCH 4-BIT DECADE	01295	SN74LS162(N OR J)
A4U1232	156-1149-00			IC,LINEAR:BIFET,OP-AMP	27014	LF351N
A4U1300	156-1149-00			IC,LINEAR:BIFET,OP-AMP	27014	LF351N
A4U1320	156-0796-00			IC,DIGITAL:CMOS,SHIFT REGISTER;8-STAGE	04713	MC14094BCP
A4U1321	156-0875-00			IC,DIGITAL:LSTTL,GATES;DUAL 2-WIDE, 2-INPUT	01295	SN74LS51N
A4U1330	156-0182-00			IC,DIGITAL:ECL,GATE;TRIPLE 2-3-2 INPUT	04713	MC10105P/L
A4U1400	156-0382-00			IC,DIGITAL:LSTTL,GATE;QUAD 2-INPUT NAND	01295	SN74LS00N
A4U1410	156-1235-00			IC,DIGITAL:LSTTL,DEMUX/DECODER	01295	SN74LS145N
A4U1411	156-1304-00			IC,DIGITAL:TTL,RECEIVER;DUAL SINGLE ENDED	01295	SN75140P
A4U1420	156-0796-00			IC,DIGITAL:CMOS,SHIFT REGISTER;8-STAGE	04713	MC14094BCP
A4U1421	156-0796-00			IC,DIGITAL:CMOS,SHIFT REGISTER;8-STAGE	04713	MC14094BCP
A4U1422	156-0388-00			IC,DIGITAL:LSTTL,FLIP FLOP;DUAL D W/SET	01295	SN74LS74AN
A4U1430	156-0452-00			IC,DIGITAL:LSTTL,GATES;4-WIDE 2-INPUT	01295	SN74LS54N
A4U1431	156-0382-00			IC,DIGITAL:LSTTL,GATE;QUAD 2-INPUT NAND	01295	SN74LS00N
A4U1510	156-1324-00			IC,LINEAR:BIPOLAR,COMPARATOR;TTL,20NS	27014	LM361N
A4U1520	156-0796-00			IC,DIGITAL:CMOS,SHIFT REGISTER;8-STAGE	04713	MC14094BCP
A4U1521	156-0410-00			IC,DIGITAL:MOS,TIME BASE	60496	MIC5009CN
A4U1530	156-0656-00			IC,DIGITAL:LSTTL,COUNTER;DECADE;74LS90	01295	SN74LS90N
A4U1531	156-0910-00			IC,DIGITAL:LSTTL,COUNTER;DUAL 4-BIT DECADE	01295	SN74LS390N
A4U1610	156-1308-00			IC,LINEAR:BIPOLAR,VOLTAGE REGULATOR	49956	RM4194DC
A4U1630	156-0382-00			IC,DIGITAL:LSTTL,GATE;QUAD 2-INPUT NAND	01295	SN74LS00N
A4VR1031	152-0647-00			DIODE,ZENER:,;6.8V,5%,0.4W;1N957B,DO-7	04713	1N957B
A4VR1630	152-0733-00			SEMICOND DVC,DI:ZEN,SI,15V,5%,5W	04713	1N5352B
A4VR1631	152-0733-00			SEMICOND DVC,DI:ZEN,SI,15V,5%,5W	04713	1N5352B
A4W1510	175-2829-00			CA ASSY,SP,ELEC:2,26 AWG,5.5 L,RIBBON	80009	175-2829-00
A4W1601	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA 07
A4W1602	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA 07
A4W1620	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA 07
A4Y1501	119-1187-00			OSCILLATOR,RF:XTAL CONTROLLED,5.00 MHZ, (CG5010 OPTION 01 ONLY)	50140	001-45340

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A4Y1501	119-1187-00	B010100	B011298	OSCILLATOR,RF:XTAL CONTROLLED,5.00 MHZ,	50140	001-45340
A4Y1501	119-1187-01	B011299		OSCILLATOR,RF:XTAL CONTROLLED,5.00 MHZ, (CG5011 ONLY)	80009	119-1187-01
A5	671-1333-00			CIRCUIT BD ASSY:PS MAIN	80009	671-1333-00
A5C1001	290-0943-00			CAP,FXD,ELCTLT:47UF,+50-20%,25V	1W344	KMC25VB47RM6X11LL
A5C1002	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A5C1003	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A5C1011	290-0136-00			CAP,FXD,ELCTLT:2.2UF,20%,20V	31433	T322B225M020AS
A5C1021	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A5C1031	281-0812-00			CAP,FXD,CER DI:1000PF,10%,100V	04222	SA101C102KAA
A5C1041	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A5C1101	281-0812-00			CAP,FXD,CER DI:1000PF,10%,100V	04222	SA101C102KAA
A5C1111	283-0210-00			CAP,FXD,CER DI:0.0056UF,20%,100V	04222	SR301C562MAA
A5C1131	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A5C1141	290-0261-00			CAP,FXD,ELCTLT:6.8UF,10%,35V	31433	T110B685K035AS
A5C1702	290-0950-00			CAP,FXD,ELCTLT:100UF,+50-20%,50WVDC	1W344	SM50VB101M10X20LL
A5C1704	290-0950-00			CAP,FXD,ELCTLT:100UF,+50-20%,50WVDC	1W344	SM50VB101M10X20LL
A5C1740	290-0919-00			CAP,FXD,ELCTLT:470UF,+50-20%,35V	1W344	KME35VB471M10X20LL
A5C1742	290-0919-00			CAP,FXD,ELCTLT:470UF,+50-20%,35V	1W344	KME35VB471M10X20LL
A5C1822	283-0211-00			CAP,FXD,CER DI:0.1UF,10%,200V	04222	SR302C104KAA
A5C1830	283-0211-00			CAP,FXD,CER DI:0.1UF,10%,200V	04222	SR302C104KAA
A5CR1041	152-0414-00			DIODE,RECT:,200V,1.0A,750NS;RGP10D,TR	14936	RGP10D-007
A5CR1102	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A5CR1710	152-0586-00			SEMICOND DVC,DI:RECT,SI,600V,0.5A	25403	BYV96D OR BYV95C
A5CR1720	152-0586-00			SEMICOND DVC,DI:RECT,SI,600V,0.5A	25403	BYV96D OR BYV95C
A5CR1722	152-0586-00			SEMICOND DVC,DI:RECT,SI,600V,0.5A	25403	BYV96D OR BYV95C
A5CR1725	152-0586-00			SEMICOND DVC,DI:RECT,SI,600V,0.5A	25403	BYV96D OR BYV95C
A5CR1734	152-0586-00			SEMICOND DVC,DI:RECT,SI,600V,0.5A	25403	BYV96D OR BYV95C
A5CR1736	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A5CR1737	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A5CR1812	152-0586-00			SEMICOND DVC,DI:RECT,SI,600V,0.5A	25403	BYV96D OR BYV95C
A5CR1814	152-0586-00			SEMICOND DVC,DI:RECT,SI,600V,0.5A	25403	BYV96D OR BYV95C
A5F1041	159-0015-00			FUSE,CARTRIDGE:3AG,3A,250V,0.65SEC	75915	312 003
A5F1141	159-0016-00			FUSE,CARTRIDGE:3AG,1.5,250V,FAST BLOW	75915	31201.5
A5J1021	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN	22526	75377-001
A5J1031	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN	22526	75377-001
A5J1032	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN	22526	75377-001
A5J1033	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN	22526	75377-001
A5J1034	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN	22526	75377-001
A5J1035	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN	22526	75377-001
A5J1036	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN	22526	75377-001
A5J1041	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN	22526	75377-001
A5J1043	136-0263-04			SOCKET,PIN TERM:U/W 0.025 SQ PIN	22526	75377-001
A5J1101	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025 (QUANTITY OF 3)	22526	48283-036
A5J1121	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025 (QUANTITY OF 4)	22526	48283-036
A5J1712	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025 (QUANTITY OF 5)	22526	48283-036
A5J1824	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025 (QUANTITY OF 4)	22526	48283-036
A501011	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A501021	151-0311-01			TRANSISTOR,PWR:BIPOLAR,NPN;300V,500MA	04713	MJE340
A501031	151-0311-01			TRANSISTOR,PWR:BIPOLAR,NPN;300V,500MA	04713	MJE340

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A5Q1041	151-0521-00			SCR:SI,MU-27	04713	C122B1
A5Q1111	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A5Q1712	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A5Q1714	151-0443-00			TRANSISTOR,SIG:BIPOLAR,PNP;300V,500MA,50MHZ	04713	MPSA92
A5Q1720	151-0444-00			TRANSISTOR,SIG:BIPOLAR,NPN;350V,500MA,40MHZ	04713	2N6517
A5Q1722	151-0443-00			TRANSISTOR,SIG:BIPOLAR,PNP;300V,500MA,50MHZ	04713	MPSA92
A5Q1730	151-0444-00			TRANSISTOR,SIG:BIPOLAR,NPN;350V,500MA,40MHZ	04713	2N6517
A5Q1735	151-0444-00			TRANSISTOR,SIG:BIPOLAR,NPN;350V,500MA,40MHZ	04713	2N6517
A5Q1736	151-0443-00			TRANSISTOR,SIG:BIPOLAR,PNP;300V,500MA,50MHZ	04713	MPSA92
A5Q1830	151-0444-00			TRANSISTOR,SIG:BIPOLAR,NPN;350V,500MA,40MHZ	04713	2N6517
A5R1001	313-1751-00			RES,FXD,FILM:750 OHM,5%,0.2W	91637	CCF50-2-750R0J
A5R1002	322-3226-00			RES,FXD,FILM:2.21K OHM,1%,0.2W,TC=T0	91637	CCF501G22100F
A5R1003	322-3239-00			RES,FXD,FILM:3.01K OHM,1%,0.2W,TC=T0	91637	CCF501G30100F
A5R1004	311-2257-00			RES,VAR,NONWW:TRMR,500 OHM,20%,0.5WLINEAR	32997	3362-M-1-501R
A5R1005	322-3281-00			RES,FXD,FILM:8.25K OHM,1%,0.2W,TC=T0	91637	CCF501G82500F
A5R1010	313-1202-00			RES,FXD,FILM:2K OHM,5%,0.2W	91637	CCF50-2-20000J
A5R1011	313-1152-00			RES,FXD,FILM:1.5K OHM,5%,0.2W	91637	CCF50-2-15000J
A5R1012	322-3165-00			RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0	91637	CCF501G511R0F
A5R1021	322-3069-00			RES,FXD,FILM:51.1 OHM,1%,0.2W,TC=T0	91637	CCF501G51R10F
A5R1022	308-0742-00			RES,FXD,WW:0.24 OHM,5%,2W	75042	BWH-R2400J
A5R1031	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0	56845	CCF50-2-G4751FT
A5R1032	322-3261-00			RES,FXD,FILM:5.11K OHM,1%,0.2W,TC=T0	91637	CCF50G5111FT
A5R1041	313-1102-00			RES,FXD,FILM:1K OHM,5%,0.2W	91637	CCF50-2-10000J
A5R1042	313-1101-00			RES,FXD,FILM:100 OHM,5%,0.2W	91637	CCF50-2-100R0J
A5R1101	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A5R1102	313-1203-00			RES,FXD,FILM:20K OHM,5%,0.2W	91637	CCF50-2-20001J
A5R1103	313-1752-00			RES,FXD,FILM:7.5K OHM,5%,0.2W	91637	CCF50-2-75000J
A5R1104	311-2273-00			RES,VAR,NONWW:TRMR,2K OHM,20%,0.5WLINEAR	TK2073	GF06VT2 202 M L20
A5R1105	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A5R1106	311-2273-00			RES,VAR,NONWW:TRMR,2K OHM,20%,0.5WLINEAR	TK2073	GF06VT2 202 M L20
A5R1107	313-1203-00			RES,FXD,FILM:20K OHM,5%,0.2W	91637	CCF50-2-20001J
A5R1110	313-1202-00			RES,FXD,FILM:2K OHM,5%,0.2W	91637	CCF50-2-20000J
A5R1111	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0	56845	CCF50-2-G4751FT
A5R1112	322-3273-00			RES,FXD,FILM:6.81K OHM,1%,0.2W,TC=T0	91637	CCF50-2-G68100F
A5R1113	308-0703-00			RES,FXD,WW:1.8 OHM,5%,2W	75042	SPH 1.8 OHM
A5R1121	308-0755-00			RES,FXD,WW:0.75 OHM,5%,2W	91637	CPF-2-0R75JT
A5R1131	322-3297-00			RES,FXD,FILM:12.1K OHM,1%,0.2W,TC=T0	91637	CCF501G12101F
A5R1132	322-3273-00			RES,FXD,FILM:6.81K OHM,1%,0.2W,TC=T0	91637	CCF50-2-G68100F
A5R1133	322-3273-00			RES,FXD,FILM:6.81K OHM,1%,0.2W,TC=T0	91637	CCF50-2-G68100F
A5R1134	322-3261-00			RES,FXD,FILM:5.11K OHM,1%,0.2W,TC=T0	91637	CCF50G5111FT
A5R1135	313-1101-00			RES,FXD,FILM:100 OHM,5%,0.2W	91637	CCF50-2-100R0J
A5R1136	313-1101-00			RES,FXD,FILM:100 OHM,5%,0.2W	91637	CCF50-2-100R0J
A5R1137	313-1202-00			RES,FXD,FILM:2K OHM,5%,0.2W	91637	CCF50-2-20000J
A5R1141	301-0152-00			RES,FXD,FILM:1.5K OHM,5%,0.5W	19701	5053CX1K500J
A5R1712	313-1153-00			RES,FXD,FILM:15K,5%,0.2W	91637	CCF50-2-15001J
A5R1714	322-3254-00			RES,FXD,FILM:4.32K OHM,1%,0.2W,TC=T0	91637	CCF502G4321FT
A5R1716	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0	56845	CCF50-2-G4751FT
A5R1720	322-3392-00			RES,FXD,FILM:118K OHM,1%,0.2W,TC=T0	91637	CCF501G11802F
A5R1722	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A5R1725	313-1104-00			RES,FXD,FILM:100K OHM,5%,0.2W	91637	CCF50-2-10002J
A5R1730	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A5R1735	322-3392-00			RES,FXD,FILM:118K OHM,1%,0.2W,TC=T0	91637	CCF501G11802F
A5R1737	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0	56845	CCF50-2-G4751FT
A5R1830	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0	56845	CCF50-2-G4751FT
A5TP1101	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025	22526	48283-036
A5TP1102	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025	22526	48283-036

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A5TP1103	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,:MALE,STR,0.025	22526	48283-036
A5TP1104	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,:MALE,STR,0.025	22526	48283-036
A5TP1702	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,:MALE,STR,0.025	22526	48283-036
A5TP1802	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,:MALE,STR,0.025	22526	48283-036
A5U1011	156-0071-00			IC,LINEAR:BIPOLAR,VOLTAGE REGULATOR	27014	LM723CN
A5U1111	156-0067-00			IC,LINEAR:BIPOLAR,OP-AMP	04713	MC1741CP1
A5U1112	156-0109-00			IC,OPTO:,ISOLATOR;ILED-PHOTOTRAN,ISOV 1,500	0JR04	TLP 535
A5U1113	156-0071-00			IC,LINEAR:BIPOLAR,VOLTAGE REGULATOR	27014	LM723CN
A5U1121	156-0071-00			IC,LINEAR:BIPOLAR,VOLTAGE REGULATOR	27014	LM723CN
A5VR1041	152-0175-00			DIODE,ZENER:,:5.6V,5%,0.4W;1N752A,DO-7	04713	SZG35008 (1N752ARL)
A5VR1042	152-0265-00			DIODE,ZENER:,:24V,5%,0.4W;1N970B,DO-7	04713	1N970BRL
A5VR1043	152-0265-00			DIODE,ZENER:,:24V,5%,0.4W;1N970B,DO-7	04713	1N970BRL
A5VR1101	152-0464-00			DIODE,ZENER:,:6.4V,5%,0.4W;1N4570,DO-35	04713	1N4570RL
A5VR1141	152-0243-00			DIODE,ZENER:,:15V,5%,0.4W;1N965B,DO-7	04713	SZ13203 (1N965BRL)
A5A1	671-1334-00			CIRCUIT BD ASSY:PS ISOLATION	80009	671-1334-00
A5A1C1000	281-0785-00			CAP,FXD,CER DI:68PF,10%,100V	04222	SA102A680KAA
A5A1C1020	281-0814-00			CAP,FXD,CER DI:100 PF,10%,100V	04222	SA102A101KAA
A5A1C1021	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A5A1C1100	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A5A1C1101	290-0517-00			CAP,FXD,ELCTLT:6.8UF,20%,35V	31433	T355F685M035AS
A5A1C1110	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A5A1C1111	290-0517-00			CAP,FXD,ELCTLT:6.8UF,20%,35V	31433	T355F685M035AS
A5A1C1112	281-0763-00			CAP,FXD,CER DI:47PF,10%,100V	04222	SA102A470KAA
A5A1C1113	281-0763-00			CAP,FXD,CER DI:47PF,10%,100V	04222	SA102A470KAA
A5A1C1114	281-0814-00			CAP,FXD,CER DI:100 PF,10%,100V	04222	SA102A101KAA
A5A1C1115	283-0189-00			CAP,FXD,CER DI:0.1UF,20%,400V	04222	SR508C104MAA
A5A1C1120	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A5A1C1121	290-0745-00			CAP,FXD,ELCTLT:22UF,+50-20%,25WVDC	1W344	SM63VB22RM8X11LL
A5A1C1122	281-0763-00			CAP,FXD,CER DI:47PF,10%,100V	04222	SA102A470KAA
A5A1C1123	281-0763-00			CAP,FXD,CER DI:47PF,10%,100V	04222	SA102A470KAA
A5A1C1131	290-0517-00			CAP,FXD,ELCTLT:6.8UF,20%,35V	31433	T355F685M035AS
A5A1C1132	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A5A1C1300	283-0211-00			CAP,FXD,CER DI:0.1UF,10%,200V	04222	SR302C104KAA
A5A1C1301	283-0211-00			CAP,FXD,CER DI:0.1UF,10%,200V	04222	SR302C104KAA
A5A1C1310	283-0211-00			CAP,FXD,CER DI:0.1UF,10%,200V	04222	SR302C104KAA
A5A1C1311	283-0211-00			CAP,FXD,CER DI:0.1UF,10%,200V	04222	SR302C104KAA
A5A1C1312	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A5A1C1313	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A5A1C1320	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A5A1C1321	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A5A1C1330	290-0261-00			CAP,FXD,ELCTLT:6.8UF,10%,35V	31433	T110B685K035AS
A5A1C1331	290-0261-00			CAP,FXD,ELCTLT:6.8UF,10%,35V	31433	T110B685K035AS
A5A1C1332	290-0261-00			CAP,FXD,ELCTLT:6.8UF,10%,35V	31433	T110B685K035AS
A5A1C1333	290-0261-00			CAP,FXD,ELCTLT:6.8UF,10%,35V	31433	T110B685K035AS
A5A1C1400	283-0189-00			CAP,FXD,CER DI:0.1UF,20%,400V	04222	SR508C104MAA
A5A1C1420	290-0745-00			CAP,FXD,ELCTLT:22UF,+50-20%,25WVDC	1W344	SM63VB22RM8X11LL
A5A1C1421	290-0745-00			CAP,FXD,ELCTLT:22UF,+50-20%,25WVDC	1W344	SM63VB22RM8X11LL
A5A1CR1020	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A5A1CR1200	152-0398-00			DIODE,RECT:,FAST RCVRY;200V,1A,200NS;1N4935	25403	1N4935
A5A1CR1201	152-0398-00			DIODE,RECT:,FAST RCVRY;200V,1A,200NS;1N4935	25403	1N4935
A5A1CR1202	152-0398-00			DIODE,RECT:,FAST RCVRY;200V,1A,200NS;1N4935	25403	1N4935
A5A1CR1203	152-0398-00			DIODE,RECT:,FAST RCVRY;200V,1A,200NS;1N4935	25403	1N4935

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A5A1CR1220	152-0574-00			DIODE,SIG:,ULTRA FAST;120V,150MA,4NS	27014	FDH9876
A5A1CR1221	152-0574-00			DIODE,SIG:,ULTRA FAST;120V,150MA,4NS	27014	FDH9876
A5A1CR1222	152-0333-00			SEMICOND DVC,DI:SW,SI,55V,200MA,DO-351N461D	27014	FDH-6012
A5A1CR1223	152-0333-00			SEMICOND DVC,DI:SW,SI,55V,200MA,DO-351N461D	27014	FDH-6012
A5A1CR1230	152-0574-00			DIODE,SIG:,ULTRA FAST;120V,150MA,4NS	27014	FDH9876
A5A1CR1231	152-0574-00			DIODE,SIG:,ULTRA FAST;120V,150MA,4NS	27014	FDH9876
A5A1CR1232	152-0333-00			SEMICOND DVC,DI:SW,SI,55V,200MA,DO-351N461D	27014	FDH-6012
A5A1CR1233	152-0333-00			SEMICOND DVC,DI:SW,SI,55V,200MA,DO-351N461D	27014	FDH-6012
A5A1CR1300	152-0398-00			DIODE,RECT:,FAST RCVRY;200V,1A,200NS;1N4935	25403	1N4935
A5A1CR1301	152-0398-00			DIODE,RECT:,FAST RCVRY;200V,1A,200NS;1N4935	25403	1N4935
A5A1CR1302	152-0398-00			DIODE,RECT:,FAST RCVRY;200V,1A,200NS;1N4935	25403	1N4935
A5A1CR1303	152-0398-00			DIODE,RECT:,FAST RCVRY;200V,1A,200NS;1N4935	25403	1N4935
A5A1L1100	108-0237-00			COIL,RF:FIXED,80UH	0JR03	108-0237-00
A5A1L1130	108-0422-00			COIL,RF:FIXED,80UH	0JR03	108-0422-00
A5A1L1300	108-0226-00			COIL,RF:FIXED,100UH	76493	B4257
A5A1L1301	108-0226-00			COIL,RF:FIXED,100UH	76493	B4257
A5A1L1302	108-0226-00			COIL,RF:FIXED,100UH	76493	B4257
A5A1L1310	108-0226-00			COIL,RF:FIXED,100UH	76493	B4257
A5A1L1311	108-0237-00			COIL,RF:FIXED,80UH	0JR03	108-0237-00
A5A1L1312	108-0422-00			COIL,RF:FIXED,80UH	0JR03	108-0422-00
A5A1L1320	108-0422-00			COIL,RF:FIXED,80UH	0JR03	108-0422-00
A5A1L1321	108-0237-00			COIL,RF:FIXED,80UH	0JR03	108-0237-00
A5A1Q1020	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A5A1Q1110	151-1119-00			TRANSISTOR,PWR:MOS,N-CH;100V,5.0A,0.4 OHM	17856	IRFF122
A5A1Q1120	151-1119-00			TRANSISTOR,PWR:MOS,N-CH;100V,5.0A,0.4 OHM	17856	IRFF122
A5A1Q1210	151-1119-00			TRANSISTOR,PWR:MOS,N-CH;100V,5.0A,0.4 OHM	17856	IRFF122
A5A1Q1220	151-1119-00			TRANSISTOR,PWR:MOS,N-CH;100V,5.0A,0.4 OHM	17856	IRFF122
A5A1R1020	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W	19701	5043CX10K00J
A5A1R1030	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W	19701	5043CX510R0J
A5A1R1100	315-0333-00			RES,FXD,FILM:33K OHM,5%,0.25W	57668	NTR25J-E33K0
A5A1R1101	315-0203-00			RES,FXD,FILM:20K OHM,5%,0.25W	57668	NTR25J-E 20K
A5A1R1110	315-0104-00			RES,FXD,FILM:100K OHM,5%,0.25W	57668	NTR25J-E100K
A5A1R1120	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W	19701	5043CX51R00J
A5A1R1121	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W	19701	5043CX51R00J
A5A1R1200	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W	57668	NTR25J-E 100E
A5A1R1201	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W	57668	NTR25J-E 100E
A5A1R1202	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W	57668	NTR25J-E 100E
A5A1R1203	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W	57668	NTR25J-E 100E
A5A1R1220	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W	19701	5043CX51R00J
A5A1R1221	315-0510-00			RES,FXD,FILM:51 OHM,5%,0.25W	19701	5043CX51R00J
A5A1R1400	315-0104-00			RES,FXD,FILM:100K OHM,5%,0.25W	57668	NTR25J-E100K
A5A1R1410	315-0104-00			RES,FXD,FILM:100K OHM,5%,0.25W	57668	NTR25J-E100K
A5A1T1010	120-0508-00			XFMR,TOROID:	0JR03	120-0508-00
A5A1T1210	120-1305-00			XFMR,PWR,STU:HF CONVERTER, CG551AP, PRI 40	54937	500-4070
A5A1T1230	120-1304-00			XFMR,PWR,SDN&SU:HF CONVERTER	54937	500-4069
A5A1T1300	120-0697-00			XFMR,TOROID:	0JR03	120-0697-00
A5A1T1310	120-0697-00			XFMR,TOROID:	0JR03	120-0697-00
A5A1T1420	120-1306-00			TRANSFORMER,RF:COMMON MODE	0JR03	120-1306-00
A5A1U1000	156-1408-00			IC,MISC:CMOS,TIMER	34371	ICM7555IPA
A5A1U1010	156-0366-00			IC,DIGITAL:CMOS,FLIP FLOP;DUAL D-TYPE;4013B	04713	MC14013BCP
A5A1U1011	156-0494-00			IC,DIGITAL:CMOS,BUFFER/DRIVER;HEX INV;4049B	04713	MC14049UBCP
A5A1U1020	156-0494-00			IC,DIGITAL:CMOS,BUFFER/DRIVER;HEX INV;4049B	04713	MC14049UBCP
A5A1VR1021	152-0123-00			SEMICOND DVC,DI:ZEN,SI,9V,5%,0.5W	12954	DT720623U (1N935A)

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A5A1W1000	198-4219-00			WIRE SET,ELEC: (FROM A5J1824 TO A5A1P1824) (FROM A5J1712 TO A5Z11712) (FROM A5J1121 TO A5A1P1121) (FROM A5J1101 TO A5Q501)	80009	198-4219-00
A5A2	671-1335-00			CIRCUIT BD ASSY:PS INTERFACE	80009	671-1335-00
A5A2P1021	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A5A2P1031	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A5A2P1032	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A5A2P1033	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A5A2P1034	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A5A2P1035	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A5A2P1036	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A5A2P1041	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A5A2P1043	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,;MALE,STR,0.025	22526	47359-000
A6	671-1336-00	B010100	B010168	CIRCUIT BD ASSY:REFERENCE	80009	671-1336-00
A6	671-1336-01	B010169		CKT BD SUBASSY:REFERENCE (CG5010 & OPTION 01 ONLY)	80009	671-1336-01
A6	671-1336-00	B010100	B010187	CIRCUIT BD ASSY:REFERENCE	80009	671-1336-00
A6	671-1336-01	B010188		CKT BD SUBASSY:REFERENCE (CG5011 ONLY)	80009	671-1336-01
A6C1001	290-0517-00			CAP,FXD,ELCTLT:6.8UF,20%,35V	31433	T355F685M035AS
A6C1002	290-0517-00			CAP,FXD,ELCTLT:6.8UF,20%,35V	31433	T355F685M035AS
A6C1003	290-0517-00			CAP,FXD,ELCTLT:6.8UF,20%,35V	31433	T355F685M035AS
A6C1004	290-0517-00			CAP,FXD,ELCTLT:6.8UF,20%,35V	31433	T355F685M035AS
A6C1005	283-0177-00			CAP,FXD,CER DI:1UF,+80-20%,25V	04222	SR303E105ZAA
A6C1011	290-0517-00			CAP,FXD,ELCTLT:6.8UF,20%,35V	31433	T355F685M035AS
A6C1121	290-0534-00			CAP,FXD,ELCTLT:1UF,20%,35V	31433	T355A105M035AS
A6C1131	290-0782-00			CAP,FXD,ELCTLT:4.7UF,+75-20%,35VDC	55680	UVX1V4R7MAA
A6C1141	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A6C1201	281-0226-00			CAP,VAR,PLASTIC:4-38PF,100V	52769	GXD38000
A6C1211	283-0618-00			CAP,FXD,MICA DI:130PF,2%,400V	09023	CD15FD131G03
A6C1221	290-0534-00			CAP,FXD,ELCTLT:1UF,20%,35V	31433	T355A105M035AS
A6C1241	281-0812-00			CAP,FXD,CER DI:1000PF,10%,100V	04222	SA101C102KAA
A6C1242	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A6C1301	281-0813-00			CAP,FXD,CER DI:0.047UF,20%,50V	04222	SA105E473MAA
A6C1311	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A6C1312	290-0534-00			CAP,FXD,ELCTLT:1UF,20%,35V	31433	T355A105M035AS
A6C1313	281-0768-00			CAP,FXD,CER DI:470PF,20%,100V	04222	SA101A471KAA
A6C1321	290-0534-00			CAP,FXD,ELCTLT:1UF,20%,35V	31433	T355A105M035AS
A6C1331	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A6C1332	281-0791-00			CAP,FXD,CER DI:270PF,10%,100V	04222	SA102C271KAA
A6C1400	281-0815-00			CAP,FXD,CER DI:0.027UF,20%,50V	04222	SA205C273MAA
A6C1401	281-0097-00			CAP,VAR,AIR DI:9-35PF,200V	33095	53-717-029-D9-35
A6C1402	281-0809-00			CAP,FXD,CER DI:200 PF,5%,100V	04222	SA101A201JAA
A6C1403	290-0276-00			CAP,FXD,ELCTLT:0.68UF,10%,35V	31433	T322B684K035AS
A6C1404	290-0276-00			CAP,FXD,ELCTLT:0.68UF,10%,35V	31433	T322B684K035AS
A6C1411	283-0189-00			CAP,FXD,CER DI:0.1UF,20%,400V	04222	SR508C104MAA
A6C1412	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A6C1421	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A6C1431	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A6C1505	283-0078-00			CAP,FXD,CER DI:0.001UF,20%,500V	59660	0801 547 X5F0 102 M
A6C1506	283-0078-00			CAP,FXD,CER DI:0.001UF,20%,500V	59660	0801 547 X5F0 102 M
A6C1531	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A6C1605	283-0189-00			CAP,FXD,CER DI:0.1UF,20%,400V	04222	SR508C104MAA
A6C1609	281-0792-00	B010100	B010168	CAP,FXD,CER DI:82PF,10%,100V	04222	SA102A820KAA
A6C1609	281-0791-00	B010169		CAP,FXD,CER DI:270PF,10%,100V (CG5010 & OPTION 01 ONLY)	04222	SA102C271KAA
A6C1609	281-0792-00	B010100	B010187	CAP,FXD,CER DI:82PF,10%,100V	04222	SA102A820KAA
A6C1609	281-0791-00	B010188		CAP,FXD,CER DI:270PF,10%,100V (CG5011 ONLY)	04222	SA102C271KAA
A6C1610	281-0813-00			CAP,FXD,CER DI:0.047UF,20%,50V	04222	SA105E473MAA
A6C1611	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A6C1612	281-0812-00	B010100	B010168	CAP,FXD,CER DI:1000PF,10%,100V	04222	SA101C102KAA
A6C1612	281-0925-01	B010169		CAP,FXD,:CERAMIC,MLC;0.22UF,20%,50V (CG5010 & OPTION 01 ONLY)	04222	SA115E224MAA
A6C1612	281-0812-00	B010100	B010187	CAP,FXD,CER DI:1000PF,10%,100V	04222	SA101C102KAA
A6C1612	281-0925-01	B010188		CAP,FXD,:CERAMIC,MLC;0.22UF,20%,50V (CG5011 ONLY)	04222	SA115E224MAA
A6C1613	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A6C1621	281-0812-00			CAP,FXD,CER DI:1000PF,10%,100V	04222	SA101C102KAA
A6C1622	290-0527-00			CAP,FXD,ELCTLT:15UF,20%,20V	31433	T355F156M020AS
A6C1632	281-0809-00			CAP,FXD,CER DI:200 PF,5%,100V	04222	SA101A201JAA
A6C1635	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A6C1641	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A6C1700	281-0814-00			CAP,FXD,CER DI:100 PF,10%,100V	04222	SA102A101KAA
A6C1701	281-0809-00			CAP,FXD,CER DI:200 PF,5%,100V	04222	SA101A201JAA
A6C1702	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A6C1721	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A6C1722	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A6C1810	283-0398-00			CAP,FXD,CER DI:680PF,2%,100V	04222	SR201A681GAA
A6C1834	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A6C1841	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A6CR1111	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1112	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1113	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1121	152-0066-00			DIODE,RECT:,;400V,1A,IFSM = 30A;GP10G,DO-41	25403	1N5060
A6CR1141	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1211	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1212	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1213	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1241	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1242	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1401	152-0107-00			SEMICOND DVC,DI:RECT,SI,400 V,400MA	12969	G727
A6CR1421	152-0951-00			DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35	50088	1N6263
A6CR1422	152-0951-00			DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35	50088	1N6263
A6CR1510	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1515	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1521	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1522	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1523	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1524	152-0951-00			DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35	50088	1N6263
A6CR1525	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1528	152-0951-00			DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35	50088	1N6263
A6CR1610	152-0951-00			DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35	50088	1N6263
A6CR1621	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1622	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1623	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1624	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1625	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1626	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A6CR1701	152-0951-00	B010169		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5010 & OPTION 01 ONLY)	50088	1N6263
A6CR1701	152-0951-00	B010188		DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35 (CG5011 ONLY)	50088	1N6263
A6CR1702	152-0951-00			DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35	50088	1N6263
A6CR1720	152-0107-00			SEMICOND DVC,DI:RECT,SI,400 V,400MA	12969	G727
A6CR1731	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1732	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1733	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1801	152-0536-00			DIODE,SIG:SCHTKY,;4V,0.6VF,1.0PF;MBD101	04713	MBD101
A6CR1802	152-0536-00			DIODE,SIG:SCHTKY,;4V,0.6VF,1.0PF;MBD101	04713	MBD101
A6CR1811	152-0536-00			DIODE,SIG:SCHTKY,;4V,0.6VF,1.0PF;MBD101	04713	MBD101
A6CR1821	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1822	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1831	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1832	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6CR1835	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A6K1101	148-0124-00			RELAY,REED:FORM A,500MA,250VDC,COIL 6VC 290	21317	1A06Y290BIAA
A6K1102	148-0076-00			RELAY,REED:1 FORM A,COIL 5VDC 500 OHM	12617	HE721A6314
A6K1111	148-0167-00			RELAY REED:1 FORM A,MERCURY WETTED ALL	71482	MSS-21A05
A6Q1041	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A6Q1111	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A6Q1112	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A6Q1121	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A6Q1141	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A6Q1142	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A6Q1143	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A6Q1211	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A6Q1212	151-0208-00			TRANSISTOR,SIG:BIPOLAR,PNP;65V,1.0A,60MHZ	04713	2N4036
A6Q1221	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A6Q1241	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A6Q1311	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A6Q1312	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A6Q1321	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A6Q1322	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A6Q1409	151-1121-00			TRANSISTOR,PWR:MOS,N-CH;60V,0.5A,3.0 OHM	17856	VN0606L
A6Q1410	151-1121-00			TRANSISTOR,PWR:MOS,N-CH;60V,0.5A,3.0 OHM	17856	VN0606L
A6Q1411	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A6Q1412	151-0311-01			TRANSISTOR,PWR:BIPOLAR,NPN;300V,500MA	04713	MJE340
A6Q1421	151-0136-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,700MA,100MHZ	04713	2N3053
A6Q1431	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A6Q1510	151-0698-00			TRANSISTOR:PNP,SI,TO-126	04713	MJE350
A6Q1512	151-0444-00			TRANSISTOR,SIG:BIPOLAR,NPN;350V,500MA,40MHZ	04713	2N6517
A6Q1513	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A6Q1514	151-0443-00			TRANSISTOR,SIG:BIPOLAR,PNP;300V,500MA,50MHZ	04713	MPSA92
A6Q1521	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A6Q1522	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A6Q1531	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A6Q1537	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A6Q1541	151-1103-00			TRANSISTOR,SIG:DMOS,N-CH;ENH,30V,50MA,45	17856	SD210DE
A6Q1611	151-1066-00			TRANSISTOR,SIG:JFET,P-CH;10V,10MA(MIN),75	27014	F88025D
A6Q1612	151-1120-00			TRANSISTOR,PWR:MOS,P-CH;60V,0.5A,8.0 OHM	59640	VP0106N3
A6Q1621	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A6Q1631	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A6Q1632	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906

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A6Q1634	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A6Q1640	151-1103-00			TRANSISTOR,SIG:DMOS,N-CH;ENH,30V,50MA,45	17856	SD210DE
A6Q1641	151-1103-00			TRANSISTOR,SIG:DMOS,N-CH;ENH,30V,50MA,45	17856	SD210DE
A6Q1642	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A6Q1643	151-1103-00			TRANSISTOR,SIG:DMOS,N-CH;ENH,30V,50MA,45	17856	SD210DE
A6Q1644	151-1103-00			TRANSISTOR,SIG:DMOS,N-CH;ENH,30V,50MA,45	17856	SD210DE
A6Q1645	151-1066-00			TRANSISTOR,SIG:JFET,P-CH;10V,10MA(MIN),75	27014	F88025D
A6Q1701	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A6Q1702	151-0302-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,800MA,300MHZ	04713	2N2222A
A6Q1711	151-0440-00			TRANSISTOR:SELECTED D41E4	03508	X41E603
A6Q1731	151-1121-00			TRANSISTOR,PWR:MOS,N-CH;60V,0.5A,3.0 OHM	17856	VN0606L
A6Q1732	151-1121-00			TRANSISTOR,PWR:MOS,N-CH;60V,0.5A,3.0 OHM	17856	VN0606L
A6Q1733	151-1103-00			TRANSISTOR,SIG:DMOS,N-CH;ENH,30V,50MA,45	17856	SD210DE
A6Q1734	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A6Q1735	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A6Q1736	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A6Q1737	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A6Q1741	151-1103-00			TRANSISTOR,SIG:DMOS,N-CH;ENH,30V,50MA,45	17856	SD210DE
A6Q1742	151-1103-00			TRANSISTOR,SIG:DMOS,N-CH;ENH,30V,50MA,45	17856	SD210DE
A6Q1743	151-1103-00			TRANSISTOR,SIG:DMOS,N-CH;ENH,30V,50MA,45	17856	SD210DE
A6Q1744	151-1121-00			TRANSISTOR,PWR:MOS,N-CH;60V,0.5A,3.0 OHM	17856	VN0606L
A6Q1745	151-1103-00			TRANSISTOR,SIG:DMOS,N-CH;ENH,30V,50MA,45	17856	SD210DE
A6Q1811	151-0301-00			TRANSISTOR,SIG:BIPOLAR,PNP;60V,600MA,200MHZ	04713	2N2907A
A6Q1821	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A6Q1830	151-1103-00			TRANSISTOR,SIG:DMOS,N-CH;ENH,30V,50MA,45	17856	SD210DE
A6Q1831	151-1103-00			TRANSISTOR,SIG:DMOS,N-CH;ENH,30V,50MA,45	17856	SD210DE
A6Q1832	151-1103-00			TRANSISTOR,SIG:DMOS,N-CH;ENH,30V,50MA,45	17856	SD210DE
A6Q1833	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A6Q1834	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A6Q1835	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A6Q1836	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A6R1011	322-3289-00			RES,FXD,FILM:10K OHM,1%,0.2W,TC=T0	91637	CCF50G10001F
A6R1012	322-3289-00			RES,FXD,FILM:10K OHM,1%,0.2W,TC=T0	91637	CCF50G10001F
A6R1021	322-3289-00			RES,FXD,FILM:10K OHM,1%,0.2W,TC=T0	91637	CCF50G10001F
A6R1022	322-3289-00			RES,FXD,FILM:10K OHM,1%,0.2W,TC=T0	91637	CCF50G10001F
A6R1024	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0	56845	CCF50-2-G4751FT
A6R1025	322-3239-00			RES,FXD,FILM:3.01K OHM,1%,0.2W,TC=T0	91637	CCF501G30100F
A6R1031	322-3239-00			RES,FXD,FILM:3.01K OHM,1%,0.2W,TC=T0	91637	CCF501G30100F
A6R1032	322-3289-00			RES,FXD,FILM:10K OHM,1%,0.2W,TC=T0	91637	CCF50G10001F
A6R1033	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0	56845	CCF50-2-G4751FT
A6R1041	322-3239-00			RES,FXD,FILM:3.01K OHM,1%,0.2W,TC=T0	91637	CCF501G30100F
A6R1042	322-3261-00			RES,FXD,FILM:5.11K OHM,1%,0.2W,TC=T0	91637	CCF50G5111FT
A6R1043	322-3154-00			RES,FXD,FILM:392 OHM,1%,0.2W,TC=T0	91637	CCF501G392R0F
A6R1111	308-0720-01			RES,FXD,WW:50 OHM,0.5%,3W	91637	RS2B-B50R00D
A6R1113	322-3289-00			RES,FXD,FILM:10K OHM,1%,0.2W,TC=T0	91637	CCF50G10001F
A6R1114	322-3289-00			RES,FXD,FILM:10K OHM,1%,0.2W,TC=T0	91637	CCF50G10001F
A6R1115	322-3289-00			RES,FXD,FILM:10K OHM,1%,0.2W,TC=T0	91637	CCF50G10001F
A6R1121	322-3385-00			RES,FXD,FILM:100K OHM,1%,0.2W,TC=T0	91637	CCF501G10002F
A6R1123	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0	56845	CCF50-2-G4751FT
A6R1131	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0	56845	CCF50-2-G4751FT
A6R1132	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0	56845	CCF50-2-G4751FT
A6R1133	322-3193-00			RES,FXD,FILM:1K OHM,1%,0.2W,TC=T0	91637	CCF501G10000F
A6R1134	322-3354-00			RES,FXD,FILM:47.5K OHM,1%,0.2W,TC=T0	91637	CCF501G47501F
A6R1141	322-3289-00			RES,FXD,FILM:10K OHM,1%,0.2W,TC=T0	91637	CCF50G10001F
A6R1142	322-3277-00			RES,FXD,FILM:7.5K OHM,1%,0.2W,TC=T0	91637	CCF501G75000F
A6R1143	322-3162-00			RES,FXD,FILM:475 OHM,1%,0.2W,TC=T0	91637	CCF50G475R0F

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A6R1144	322-3162-00			RES,FXD,FILM:475 OHM,1%,0.2W,TC=T0	91637	CCF50G475R0F
A6R1145	322-3239-00			RES,FXD,FILM:3.01K OHM,1%,0.2W,TC=T0	91637	CCF501G30100F
A6R1146	322-3289-00			RES,FXD,FILM:10K OHM,1%,0.2W,TC=T0	91637	CCF50G10001F
A6R1147	322-3261-00			RES,FXD,FILM:5.11K OHM,1%,0.2W,TC=T0	91637	CCF50G5111FT
A6R1148	322-3243-00			RES,FXD,FILM:3.32K OHM,1%,0.2W,TC=T0	91637	CCF50-1-G33200F
A6R1201	325-0457-00			RES SET,MATCHED:10,RATIO MATCHED W/0.025	11502	TK071
A6R1203	311-2266-00			RES,VAR,NONWW:TRMR,100K OHM,20%,0.5WLINEAR	TK2073	GF06VT2 104 M L20
A6R1205	322-3289-00			RES,FXD,FILM:10K OHM,1%,0.2W,TC=T0	91637	CCF50G10001F
A6R1210	307-0659-00			RES,FXD,FILM:2.2 OHM,5%,0.25W	11502	TF07 2.2 OHM
A6R1211	322-3218-00			RES,FXD,FILM:1.82K OHM,1%,0.2W,TC=T0	91637	CCF501G18200F
A6R1213	307-0103-00			RES,FXD,CMPSN:2.7 OHM,5%,0.25W	01121	CB27G5
A6R1214	322-3306-00			RES,FXD,FILM:15K OHM,1%,0.2W,TC=T0	91637	CCF50-2-G1502F
A6R1215	322-3205-00			RES,FXD,FILM:1.33K OHM,1%,0.2W,TC=T0	91637	CCF501G13300F
A6R1216	322-3068-00			RES,FXD,FILM:49.9 OHM,1%,0.2W,TC=T0	91637	CCF501G49R90F
A6R1217	322-3143-00			RES,FXD,FILM:301 OHM,1%,0.2W,TC=T0	91637	CCF501G301R0F
A6R1231	308-0326-00			RES,FXD,WW:9.9K OHM,0.01%,0.125W	91637	WWA26-60-99000L
A6R1232	308-0738-00			RES,FXD,WW:10K OHM,0.01%,0.5W,TC=5PPMAXIAL	91637	WWA26-49
A6R1241	322-3243-00			RES,FXD,FILM:3.32K OHM,1%,0.2W,TC=T0	91637	CCF50-1-G33200F
A6R1242	322-3235-00			RES,FXD,FILM:2.74K OHM,1%,0.2W,TC=T0	91637	CCF501G27400F
A6R1243	322-3162-00			RES,FXD,FILM:475 OHM,1%,0.2W,TC=T0	91637	CCF50G475R0F
A6R1244	322-3261-00			RES,FXD,FILM:5.11K OHM,1%,0.2W,TC=T0	91637	CCF50G5111FT
A6R1301	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=T0	91637	CCF501G10R00F
A6R1302	325-0457-00			RES SET,MATCHED:10,RATIO MATCHED W/0.025	11502	TK071
A6R1311	322-3318-00			RES,FXD,FILM:20K OHM,1%,0.2W,TC=T0	91637	CCF501G20001F
A6R1312	325-0457-00			RES SET,MATCHED:10,RATIO MATCHED W/0.025	11502	TK071
A6R1314	322-3068-00			RES,FXD,FILM:49.9 OHM,1%,0.2W,TC=T0	91637	CCF501G49R90F
A6R1315	322-3205-00			RES,FXD,FILM:1.33K OHM,1%,0.2W,TC=T0	91637	CCF501G13300F
A6R1321	315-0430-00			RES,FXD,FILM:43 OHM,5%,0.25W	19701	5043CX43R00J
A6R1322	315-0430-00			RES,FXD,FILM:43 OHM,5%,0.25W	19701	5043CX43R00J
A6R1323	307-0103-00			RES,FXD,CMPSN:2.7 OHM,5%,0.25W	01121	CB27G5
A6R1324	311-2274-00			RES,VAR,NONWW:TRMR,250 OHM,20%,0.5WLINEAR	TK2073	GF06VT251
A6R1325	311-2277-00			RES,VAR,NONWW:TRMR,50 OHM,20%,0.5WLINEAR	TK2073	GF06VT2 500 M L20
A6R1326	321-0073-00			RES,FXD,FILM:56.2 OHM,1%,0.125W,TC=T0	91637	CMF55116G56R20F
A6R1327	308-0658-00			RES,FXD,WW:4K OHM,0.01%,0.125W	91637	WWP225-A40000L
A6R1328	307-0107-00			RES,FXD,CMPSN:5.6 OHM,5%,0.25W	01121	CB56G5
A6R1330	322-3126-00			RES,FXD,FILM:200 OHM,1%,0.2W,TC=T0	91637	CCF501G200R0F
A6R1331	321-1133-02			RES,FXD,FILM:240 OHM,0.5%,0.125W,TC=T2	19701	5033RC240R0D
A6R1400	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=T0	91637	CCF501G10R00F
A6R1401	322-3130-00			RES,FXD,FILM:221 OHM,1%,0.2W,TC=T0	57668	RB20FX221E
A6R1402	322-3068-00			RES,FXD,FILM:49.9 OHM,1%,0.2W,TC=T0	91637	CCF501G49R90F
A6R1404	315-0470-00			RES,FXD,FILM:47 OHM,5%,0.25W	57668	NTR25J-E47E0
A6R1406	322-3126-00			RES,FXD,FILM:200 OHM,1%,0.2W,TC=T0	91637	CCF501G200R0F
A6R1408	325-0457-00			RES SET,MATCHED:10,RATIO MATCHED W/0.025	11502	TK071
A6R1409	325-0457-00			RES SET,MATCHED:10,RATIO MATCHED W/0.025	11502	TK071
A6R1410	322-3249-00			RES,FXD,FILM:3.83K OHM,1%,0.2W,TC=T0	56845	CCF50-2-G3831FT
A6R1411	311-2268-00			RES,VAR,NONWW:TRMR,25K OHM,20%,0.5WLINEAR	TK2073	GF06VT253
A6R1412	315-0470-00			RES,FXD,FILM:47 OHM,5%,0.25W	57668	NTR25J-E47E0
A6R1421	322-3385-00			RES,FXD,FILM:100K OHM,1%,0.2W,TC=T0	91637	CCF501G10002F
A6R1422	322-3173-00			RES,FXD,FILM:619 OHM,1%,0.2W,TC=T0	91637	CCF50-2F619R0F
A6R1423	313-1133-00			RES,FXD,FILM:13K,5%,0.2W	91637	CCF50-2-13001J
A6R1424	322-3254-00			RES,FXD,FILM:4.32K OHM,1%,0.2W,TC=T0	91637	CCF502G4321FT
A6R1425	322-3173-00			RES,FXD,FILM:619 OHM,1%,0.2W,TC=T0	91637	CCF50-2F619R0F
A6R1431	322-3226-00			RES,FXD,FILM:2.21K OHM,1%,0.2W,TC=T0	91637	CCF501G22100F
A6R1432	325-0248-00			RES SET,MATCHED:(8) RESISTORS,RATIO 0.025%	05347	1665 (TYPE S102A)
A6R1433	325-0248-00			RES SET,MATCHED:(8) RESISTORS,RATIO 0.025%	05347	1665 (TYPE S102A)

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A6R1434	325-0248-00			RES SET,MATCHED:(8) RESISTORS,RATIO 0.025%	05347	1665 (TYPE S102A)
A6R1435	322-3297-00			RES,FXD,FILM:12.1K OHM,1%,0.2W,TC=TO	91637	CCF501G12101F
A6R1436	325-0248-00			RES SET,MATCHED:(8) RESISTORS,RATIO 0.025%	05347	1665 (TYPE S102A)
A6R1437	325-0248-00			RES SET,MATCHED:(8) RESISTORS,RATIO 0.025%	05347	1665 (TYPE S102A)
A6R1438	325-0248-00			RES SET,MATCHED:(8) RESISTORS,RATIO 0.025%	05347	1665 (TYPE S102A)
A6R1441	325-0248-00			RES SET,MATCHED:(8) RESISTORS,RATIO 0.025%	05347	1665 (TYPE S102A)
A6R1442	325-0248-00			RES SET,MATCHED:(8) RESISTORS,RATIO 0.025%	05347	1665 (TYPE S102A)
A6R1501	322-3289-00			RES,FXD,FILM:10K OHM,1%,0.2W,TC=TO	91637	CCF50G10001F
A6R1510	322-3130-00			RES,FXD,FILM:221 OHM,1%,0.2W,TC=TO	57668	RB20FX221E
A6R1512	322-3326-00			RES,FXD,FILM:24.3K OHM,1%,0.2W,TC-TO	91637	CCF50-2F24301F
A6R1521	322-3306-00			RES,FXD,FILM:15K OHM,1%,0.2W,TC=TO	91637	CCF50-2-G1502F
A6R1522	322-3117-00			RES,FXD,FILM:162 OHM,1%,0.2W,TC=TO	91637	CCF501G162ROF
A6R1523	322-3117-00			RES,FXD,FILM:162 OHM,1%,0.2W,TC=TO	91637	CCF501G162ROF
A6R1524	322-3306-00			RES,FXD,FILM:15K OHM,1%,0.2W,TC=TO	91637	CCF50-2-G1502F
A6R1525	322-3222-00			RES,FXD,FILM:2K OHM,1%,0.2W,TC=TO	91637	CCF501G20000F
A6R1526	322-3222-00			RES,FXD,FILM:2K OHM,1%,0.2W,TC=TO	91637	CCF501G20000F
A6R1527	322-3289-00			RES,FXD,FILM:10K OHM,1%,0.2W,TC=TO	91637	CCF50G10001F
A6R1528	322-3308-00			RES,FXD,FILM:15.8K OHM,1%,0.2W,TC=TO	91637	CCF501G15801F
A6R1530	322-3326-00			RES,FXD,FILM:24.3K OHM,1%,0.2W,TC-TO	91637	CCF50-2F24301F
A6R1531	322-3239-00			RES,FXD,FILM:3.01K OHM,1%,0.2W,TC=TO	91637	CCF501G30100F
A6R1532	311-2268-00			RES,VAR,NONWW:TRMR,25K OHM,20%,0.5WLINEAR	TK2073	GF06VT253
A6R1533	322-3261-00			RES,FXD,FILM:5.11K OHM,1%,0.2W,TC=TO	91637	CCF50G5111FT
A6R1534	322-3281-00			RES,FXD,FILM:8.25K OHM,1%,0.2W,TC=TO	91637	CCF501G82500F
A6R1537	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=TO	56845	CCF50-2-G4751FT
A6R1541	325-0331-00			RES SET,MATCHED:2 1K OHM,1 4K OHM,0.1%,0.1W	05347	1774
A6R1601	311-2273-00			RES,VAR,NONWW:TRMR,2K OHM,20%,0.5WLINEAR	TK2073	GF06VT2 202 M L20
A6R1602	322-3289-00			RES,FXD,FILM:10K OHM,1%,0.2W,TC=TO	91637	CCF50G10001F
A6R1610	322-3250-00	B010100	B010168	RES,FXD,FILM:3.92K OHM,1%,0.2W,TC=TO	91637	CCF50-2F39200F
A6R1610	322-3181-00	B010169		RES,FXD,FILM:750 OHM,1%,0.2W,TC=TO (CG5010 & OPTION 01 ONLY)	91637	CCF501G750ROF
A6R1610	322-3250-00	B010100	B010187	RES,FXD,FILM:3.92K OHM,1%,0.2W,TC=TO	91637	CCF50-2F39200F
A6R1610	322-3181-00	B010188		RES,FXD,FILM:750 OHM,1%,0.2W,TC=TO (CG5011 ONLY)	91637	CCF501G750ROF
A6R1613	322-3249-00			RES,FXD,FILM:3.83K OHM,1%,0.2W,TC=TO	56845	CCF50-2-G3831FT
A6R1614	322-3130-00			RES,FXD,FILM:221 OHM,1%,0.2W,TC=TO	57668	RB20FX221E
A6R1615	325-0457-00			RES SET,MATCHED:10,RATIO MATCHED W/0.025	11502	TK071
A6R1616	308-0644-00			RES,FXD,WW:25 OHM,1%,5W,TC=10PPMAXIAL LEADS	91637	RS5-111 25 OHM 1 PER
A6R1621	322-3121-00			RES,FXD,FILM:178 OHM,1%,0.2W,TC=TO	91637	CCF501G178ROF
A6R1622	322-3261-00			RES,FXD,FILM:5.11K OHM,1%,0.2W,TC=TO	91637	CCF50G5111FT
A6R1631	322-3273-00			RES,FXD,FILM:6.81K OHM,1%,0.2W,TC=TO	91637	CCF50-2-G68100F
A6R1632	322-3261-00			RES,FXD,FILM:5.11K OHM,1%,0.2W,TC=TO	91637	CCF50G5111FT
A6R1633	322-3361-00			RES,FXD,FILM:56.2K OHM,1%,0.2W,TC=TO	91637	CCF50-2F56201F
A6R1634	322-3361-00			RES,FXD,FILM:56.2K OHM,1%,0.2W,TC=T	91637	CCF50-2F56201F
A6R1635	322-3361-00			RES,FXD,FILM:56.2K OHM,1%,0.2W,TC=TO	91637	CCF50-2F56201F
A6R1637	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=TO	56845	CCF50-2-G4751FT
A6R1638	322-3385-00			RES,FXD,FILM:100K OHM,1%,0.2W,TC=TO	91637	CCF501G10002F
A6R1641	325-0331-00			RES SET,MATCHED:2 1K OHM,1 4K OHM,0.1%,0.1W	05347	1774
A6R1642	325-0331-00			RES SET,MATCHED:2 1K OHM,1 4K OHM,0.1%,0.1W	05347	1774
A6R1643	322-3289-00			RES,FXD,FILM:10K OHM,1%,0.2W,TC=TO	91637	CCF50G10001F
A6R1644	325-0457-00			RES SET,MATCHED:10,RATIO MATCHED W/0.025	11502	TK071
A6R1645	325-0457-00			RES SET,MATCHED:10,RATIO MATCHED W/0.025	11502	TK071
A6R1646	325-0457-00			RES SET,MATCHED:10,RATIO MATCHED W/0.025	11502	TK071
A6R1647	325-0457-00			RES SET,MATCHED:10,RATIO MATCHED W/0.025	11502	TK071
A6R1701	322-3210-00			RES,FXD,FILM:1.5K OHM,1%,0.2W,TC=TO	91637	CCF501G15000F
A6R1702	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=TO	91637	CCF501G100ROF
A6R1711	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=TO	56845	CCF50-2-G4751FT
A6R1721	322-3297-00			RES,FXD,FILM:12.1K OHM,1%,0.2W,TC=TO	91637	CCF501G12101F

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A6R1722	322-3239-00			RES,FXD,FILM:3.01K OHM,1%,0.2W,TC=T0	91637	CCF501G30100F
A6R1723	322-3297-00			RES,FXD,FILM:12.1K OHM,1%,0.2W,TC=T0	91637	CCF501G12101F
A6R1724	322-3239-00			RES,FXD,FILM:3.01K OHM,1%,0.2W,TC=T0	91637	CCF501G30100F
A6R1725	322-3385-00			RES,FXD,FILM:100K OHM,1%,0.2W,TC=T0	91637	CCF501G10002F
A6R1726	322-3385-00			RES,FXD,FILM:100K OHM,1%,0.2W,TC=T0	91637	CCF501G10002F
A6R1727	322-3481-00			RES,FXD,FILM:1M OHM.1%,0.2W,TC=T0	91637	CCF501G10003F
A6R1731	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125WTC=200	91637	CSC10A-01-104G/J
A6R1732	307-0445-00			RES NTWK,FXD,FI:4.7K OHM,2%, (9)RES,10 PIN	11236	750-101-R4.7 K TUBE
A6R1810	322-3072-00			RES,FXD,FILM:54.9 OHM,1%,0.2W,TC=T0	91637	CCF50G54R90F
A6R1811	322-3230-00			RES,FXD,FILM:2.43K OHM,1%,0.2W,TC=T0	91637	CCF50-2-G2431FT
A6R1812	301-0390-00			RES,FXD,FILM:39 OHM,5%,0.5W	01121	EB3905
A6R1822	322-3239-00			RES,FXD,FILM:3.01K OHM,1%,0.2W,TC=T0	91637	CCF501G30100F
A6R1823	315-0393-00			RES,FXD,FILM:39K OHM,5%,0.25W	57668	NTR25J-E39K0
A6T1041	120-1104-00			TRANSFORMER,RF:PULSE,TOROID	0JR03	120-1104-00
A6T1042	120-1104-00			TRANSFORMER,RF:PULSE,TOROID	0JR03	120-1104-00
A6T1241	120-1104-00			TRANSFORMER,RF:PULSE,TOROID	0JR03	120-1104-00
A6TP1200	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025	22526	48283-036
A6TP1202	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025	22526	48283-036
A6TP1304	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025	22526	48283-036
A6TP1400	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025	22526	48283-036
A6TP1401	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025	22526	48283-036
A6U1031	156-0109-00			IC,OPTO:,ISOLATOR;ILED-PHOTOTRAN,ISOV 1,500	0JR04	TLP 535
A6U1032	156-0109-00			IC,OPTO:,ISOLATOR;ILED-PHOTOTRAN,ISOV 1,500	0JR04	TLP 535
A6U1121	156-0796-00			IC,DIGITAL:CMOS,SHIFT REGISTER;8-STAGE	04713	MC14094BCP
A6U1122	156-0384-00			IC,DIGITAL:LSTTL,GATES;QUAD 2-INPUT NAND	01295	SN74LS03N
A6U1123	156-0366-00			IC,DIGITAL:CMOS,FLIP FLOP;DUAL D-TYPE;4013B	04713	MC14013BCP
A6U1131	156-1152-00			IC,DIGITAL:CMOS,MULTIVIBRATOR;DUAL	04713	MC14538BCL
A6U1211	156-1156-00			IC,LINEAR:BIFET,OP-AMP	27014	LF356N (D/C 8806)
A6U1222	156-0991-00			IC,LINEAR:BIPOLAR,VOLTAGE REGULATOR	27014	LM78L05ACZ
A6U1241	156-0719-00			IC,CONVERTER:CMOS,D/A;10 BIT,800NS,CURRENT	24355	AD7533LN
A6U1242	156-0796-00			IC,DIGITAL:CMOS,SHIFT REGISTER;8-STAGE	04713	MC14094BCP
A6U1311	156-0685-00			IC,LINEAR:BIPOLAR,OP-AMP;UNCOMPENSATED	27014	LM725CN
A6U1331	156-0854-00			IC,LINEAR:BIPOLAR,OP-AMP;LOW INPUT BIAS	27014	LM308AN
A6U1332	156-0854-00			IC,LINEAR:BIPOLAR,OP-AMP;LOW INPUT BIAS	27014	LM308AN
A6U1341	156-0796-00			IC,DIGITAL:CMOS,SHIFT REGISTER;8-STAGE	04713	MC14094BCP
A6U1411	156-1851-00			IC,LINEAR:BIPOLAR,OP-AMP;SINGLE,LOW NOISE	01295	OP27GP
A6U1432	156-1322-00			IC,LINEAR:BIPOLAR,VOLTAGE REFERENCE	24355	AD581LH/+
A6U1531	156-0513-00			IC,MISC:CMOS,ANALOG MUX;8 CHANNEL;CD4051	04713	MC14051B (CP OR CL)
A6U1541	156-0796-00			IC,DIGITAL:CMOS,SHIFT REGISTER;8-STAGE	04713	MC14094BCP
A6U1611	156-0918-00			IC,LINEAR:BIPOLAR,OP-AMP;PREAMP FOR OP-AMPS	27014	LM321AH
A6U1612	156-1156-00			IC,LINEAR:BIFET,OP-AMP	27014	LF356N (D/C 8806)
A6U1621	156-0158-00			IC,LINEAR:BIPOLAR,OP-AMP;DUAL;MC1458P1	04713	MC1458P1
A6U1631	156-1851-00			IC,LINEAR:BIPOLAR,OP-AMP;SINGLE,LOW NOISE	01295	OP27GP
A6U1632	156-0854-00			IC,LINEAR:BIPOLAR,OP-AMP;LOW INPUT BIAS	27014	LM308AN
A6U1841	156-0796-00			IC,DIGITAL:CMOS,SHIFT REGISTER;8-STAGE	04713	MC14094BCP
A6VR1821	152-0175-00			DIODE,ZENER:,;5.6V,5%,0.4W;1N752A,DO-7	04713	SZG35008 (1N752ARL)

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A7	671-1337-00	B010100	B010207	CIRCUIT BD ASSY:OUTPUT	80009	671-1337-00
A7	671-1337-01	B010208	B010215	CIRCUIT BD ASSY:OUTPUT	80009	671-1337-01
A7	671-1337-02	B010216		CIRCUIT BD ASSY:OUTPUT (CG5010 & OPTION 01 ONLY)	80009	671-1337-02
A7	671-1337-00	B010100	B010399	CIRCUIT BD ASSY:OUTPUT	80009	671-1337-00
A7	671-1337-01	B010400	B010961	CIRCUIT BD ASSY:OUTPUT	80009	671-1337-01
A7	671-1337-02	B010962		CIRCUIT BD ASSY:OUTPUT (CG5011 ONLY)	80009	671-1337-02
A7AT1630	307-1020-00			ATTENUATOR,FXD:2X,50 OHM	80009	307-1020-00
A7AT1632	307-1023-00			ATTENUATOR,FXD:5X,50 OHM	80009	307-1023-00
A7AT1634	307-1038-00			ATTENUATOR,FXD:50 OHM,20 DB	80009	307-1038-00
A7C1001	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A7C1003	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A7C1005	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A7C1011	281-0811-00			CAP,FXD,CER DI:10PF,10%,100V	04222	SA102A100KAA
A7C1017	281-0762-00			CAP,FXD,CER DI:27PF,20%,100V	04222	SA102A270MAA
A7C1019	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A7C1030	290-0183-00			CAP,FXD,ELCTLT:1UF,10%,35V	31433	T322B105K035AS
A7C1034	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A7C1102	281-0762-00			CAP,FXD,CER DI:27PF,20%,100V	04222	SA102A270MAA
A7C1131	290-0395-00			CAP,FXD,ELCTLT:4.7UF,20%,50V	31433	T110B475M050AS
A7C1200	283-0629-00			CAP,FXD,MICA DI:62PF,1%,500V	09023	CD10ED620F03
A7C1209	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A7C1210	281-0786-00			CAP,FXD,CER DI:150PF,10%,100V	04222	SA101A151KAA
A7C1217	283-0024-00			CAP,FXD,CER DI:0.1UF,+80-20%,50V	04222	SR215C104MAA
A7C1304	281-0786-00			CAP,FXD,CER DI:150PF,10%,100V	04222	SA101A151KAA
A7C1308	281-0786-00			CAP,FXD,CER DI:150PF,10%,100V	04222	SA101A151KAA
A7C1334	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A7C1401	290-0183-00			CAP,FXD,ELCTLT:1UF,10%,35V	31433	T322B105K035AS
A7C1412	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A7C1413	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A7C1414	290-0527-00			CAP,FXD,ELCTLT:15UF,20%,20V	31433	T355F156M020AS
A7C1426	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A7C1430	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A7C1518	290-0525-00			CAP,FXD,ELCTLT:4.7UF,20%,50V	31433	T355G475M050AS
A7C1520	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A7C1524	281-0768-00			CAP,FXD,CER DI:470PF,20%,100V	04222	SA101A471KAA
A7C1603	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A7C1605	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A7C1608	281-0810-00			CAP,FXD,CER DI:5.6PF,+/-0.5PF,100V	04222	SA102A5R6DAA
A7C1616	290-0525-00			CAP,FXD,ELCTLT:4.7UF,20%,50V	31433	T355G475M050AS
A7C1620	283-0353-00			CAP,FXD,CER DI:0.1UF,10%,50V	04222	12105C104KATBA
A7C1621	281-0170-00			CAP,VAR,CER DI:1.25-3PF,100V	52763	302506151
A7C1701	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A7C1705	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A7C1709	281-0810-00			CAP,FXD,CER DI:5.6PF,+/-0.5PF,100V	04222	SA102A5R6DAA
A7C1713	290-0525-00			CAP,FXD,ELCTLT:4.7UF,20%,50V	31433	T355G475M050AS
A7C1721	281-0170-00			CAP,VAR,CER DI:1.25-3PF,100V	52763	302506151
A7C1725	283-0353-00			CAP,FXD,CER DI:0.1UF,10%,50V	04222	12105C104KATBA
A7C1802	281-0812-00			CAP,FXD,CER DI:1000PF,10%,100V	04222	SA101C102KAA
A7C1803	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A7C1813	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A7C1824	290-0525-00			CAP,FXD,ELCTLT:4.7UF,20%,50V	31433	T355G475M050AS
A7CR1010	152-0951-00			DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35	50088	1N6263
A7CR1018	152-0951-00			DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35	50088	1N6263
A7CR1032	152-0066-00			DIODE,RECT:,;400V,1A,IFSM = 30A;GP10G,DO-41	25403	1N5060

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A7CR1106	152-0951-00			DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35	50088	1N6263
A7CR1108	152-0951-00			DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35	50088	1N6263
A7CR1109	152-0951-00			DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35	50088	1N6263
A7CR1113	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A7CR1114	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A7CR1116	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A7CR1205	152-0951-00			DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35	50088	1N6263
A7CR1207	152-0951-00			DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35	50088	1N6263
A7CR1210	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A7CR1413	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A7CR1421	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A7CR1423	152-0951-00			DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35	50088	1N6263
A7CR1424	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A7CR1519	152-0951-00			DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35	50088	1N6263
A7CR1624	152-0536-00			DIODE,SIG:SCHTKY,;4V,0.6VF,1.0PF;MBD101	04713	MBD101
A7CR1724	152-0536-00			DIODE,SIG:SCHTKY,;4V,0.6VF,1.0PF;MBD101	04713	MBD101
A7J1121	131-1003-00			CONN,RF JACK:PCB,PELTOLA;FEMALE,STR,0.141	80009	131-1003-00
A7J1332	131-1003-00			CONN,RF JACK:PCB,PELTOLA;FEMALE,STR,0.141	80009	131-1003-00
A7J1434	131-1003-00			CONN,RF JACK:PCB,PELTOLA;FEMALE,STR,0.141	80009	131-1003-00
A7K1225	148-0079-00			RELAY,REED:2 FORM A,COIL 5 VDC 200 OHM	12617	HE722A6318
A7K1300	148-0167-00			RELAY REED:1 FORM A,MERCURY WETTED ALL	71482	MSS-21A05
A7K1312	148-0167-00			RELAY REED:1 FORM A,MERCURY WETTED ALL	71482	MSS-21A05
A7K1314	148-0167-00			RELAY REED:1 FORM A,MERCURY WETTED ALL	71482	MSS-21A05
A7K1323	148-0167-00			RELAY REED:1 FORM A,MERCURY WETTED ALL	71482	MSS-21A05
A7K1431	148-0128-03			RELAY,ARMATURE:1 FORM X & 1 FORM Y,25A	80009	148-0128-03
A7K1432	148-0128-03			RELAY,ARMATURE:1 FORM X & 1 FORM Y,25A	80009	148-0128-03
A7K1433	148-0128-03			RELAY,ARMATURE:1 FORM X & 1 FORM Y,25A	80009	148-0128-03
A7K1434	148-0128-03			RELAY,ARMATURE:1 FORM X & 1 FORM Y,25A	80009	148-0128-03
A7K1532	148-0128-03			RELAY,ARMATURE:1 FORM X & 1 FORM Y,25A	80009	148-0128-03
A7K1534	148-0128-03			RELAY,ARMATURE:1 FORM X & 1 FORM Y,25A	80009	148-0128-03
A7K1535	148-0128-03			RELAY,ARMATURE:1 FORM X & 1 FORM Y,25A	80009	148-0128-03
A7K1537	148-0128-03			RELAY,ARMATURE:1 FORM X & 1 FORM Y,25A	80009	148-0128-03
A7K1632	148-0128-03			RELAY,ARMATURE:1 FORM X & 1 FORM Y,25A	80009	148-0128-03
A7K1634	148-0128-03			RELAY,ARMATURE:1 FORM X & 1 FORM Y,25A	80009	148-0128-03
A7K1636	148-0128-03			RELAY,ARMATURE:1 FORM X & 1 FORM Y,25A	80009	148-0128-03
A7K1638	148-0128-03			RELAY,ARMATURE:1 FORM X & 1 FORM Y,25A	80009	148-0128-03
A7K1737	148-0128-03			RELAY,ARMATURE:1 FORM X & 1 FORM Y,25A	80009	148-0128-03
A7K1739	148-0128-03			RELAY,ARMATURE:1 FORM X & 1 FORM Y,25A	80009	148-0128-03
A7L1002	108-0249-00			CHOKE,RF:FIXED,12UF	0JR03	108-0249-00
A7L1100	108-0249-00			CHOKE,RF:FIXED,12UF	0JR03	108-0249-00
A7L1223	108-0436-00			COIL,RF:FIXED,240UH ON FORM	0JR03	ORDER BY DESCRIPTION
A7L1330	108-0410-00			COIL,RF:FIXED,1UH	0JR03	108-0410-00
A7L1607	108-0260-00			COIL,RF:FIXED,98NH	0JR03	ORDER BY DESCRIPTION
A7L1626	108-0436-00			COIL,RF:FIXED,240UH ON FORM	0JR03	ORDER BY DESCRIPTION
A7L1627	108-0606-00			COIL,RF:FIXED,31NH (NOMINAL VALUE, SELECTABLE)	0JR03	108-0606-00
A7L1627	108-0643-00			COIL,RF:FIXED,44 NH ON FORM276-0145-00 (SELECTABLE VALUE)	0JR03	108-0643-00
A7L1627	108-0677-00			COIL,RF:FIXED,AXIAL,40 NH +/-15%,FORM (SELECTABLE VALUE)	0JR03	108-0677-00
A7L1703	108-0260-00			COIL,RF:FIXED,98NH	0JR03	ORDER BY DESCRIPTION
A7L1721	108-0606-00			COIL,RF:FIXED,31NH	0JR03	108-0606-00
A7L1724	108-0436-00			COIL,RF:FIXED,240UH ON FORM	0JR03	ORDER BY DESCRIPTION

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A7Q1010	151-0441-00			TRANSISTOR,SIG:BIPOLAR,NPN;15V,40MA,1.0GHZ	04713	2N3839
A7Q1012	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A7Q1030	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A7Q1032	151-0281-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,500MA,130MHZ	04713	2N6427-18
A7Q1108	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A7Q1109	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A7Q1117	151-0451-00			TRANSISTOR:NPN,SI,TO-39	04713	SRF503
A7Q1120	151-0441-00			TRANSISTOR,SIG:BIPOLAR,NPN;15V,40MA,1.0GHZ	04713	2N3839
A7Q1121	151-0434-00			TRANSISTOR:PNP,SI,TO-72	04713	SS7144
A7Q1133	151-0625-00			TRANSISTOR:PNP,SI,TO-220	04713	D45H11
A7Q1200	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A7Q1217	151-0450-00			TRANSISTOR,SIG:BIPOLAR,PNP;30V,500MA,1.3GHZ	04713	2N5583
A7Q1301	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A7Q1406	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A7Q1407	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A7Q1410	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A7Q1412	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A7Q1413	151-0311-01			TRANSISTOR,PWR:BIPOLAR,NPN;300V,500MA	04713	MJE340
A7Q1422	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A7Q1502	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A7Q1504	151-0441-00			TRANSISTOR,SIG:BIPOLAR,NPN;15V,40MA,1.0GHZ	04713	2N3839
A7Q1505	151-0441-00			TRANSISTOR,SIG:BIPOLAR,NPN;15V,40MA,1.0GHZ	04713	2N3839
A7Q1507	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A7Q1513	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A7Q1516	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A7Q1517	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A7Q1527	151-1121-00			TRANSISTOR,PWR:MOS,N-CH;60V,0.5A,3.0 OHM	17856	VN0606L
A7Q1528	151-1120-00			TRANSISTOR,PWR:MOS,P-CH;60V,0.5A,8.0 OHM	59640	VP0106N3
A7Q1601	151-0103-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,800MA,300MHZ	04713	2N2219A
A7Q1602	151-0271-00			TRANSISTOR,SIG:BIPOLAR,PNP;15V,30MA,2.0GHZ	04713	MPSH69
A7Q1604	151-0271-00			TRANSISTOR,SIG:BIPOLAR,PNP;15V,30MA,2.0GHZ	04713	MPSH69
A7Q1614	151-0447-00			TRANSISTOR:NPN,SI,TO-72	04713	SRF502
A7Q1624	151-0630-00			TRANSISTOR:NPN,SI,4 LEAD,CER PKGNE02135	62104	NE02135
A7Q1705	151-0434-00			TRANSISTOR:PNP,SI,TO-72	04713	SS7144
A7Q1706	151-0434-00			TRANSISTOR:PNP,SI,TO-72	04713	SS7144
A7Q1712	151-0441-00	B010100	B010215	TRANSISTOR,SIG:BIPOLAR,NPN;15V,40MA,1.0GHZ	04713	2N3839
A7Q1712	151-0212-00	B010216		TRANSISTOR,SIG:BIPOLAR,NPN;15V,50MA,1.0 GHZ (CG5010 & OPTION 01 ONLY)	04713	BFY90
A7Q1712	151-0441-00	B010100	B010961	TRANSISTOR,SIG:BIPOLAR,NPN;15V,40MA,1.0GHZ	04713	2N3839
A7Q1712	151-0212-00	B010962		TRANSISTOR,SIG:BIPOLAR,NPN;15V,50MA,1.0 GHZ (CG5011 ONLY)	04713	BFY90
A7Q1713	151-0441-00	B010100	B010215	TRANSISTOR,SIG:BIPOLAR,NPN;15V,40MA,1.0GHZ	04713	2N3839
A7Q1713	151-0212-00	B010216		TRANSISTOR,SIG:BIPOLAR,NPN;15V,50MA,1.0 GHZ (CG5010 & OPTION 01 ONLY)	04713	BFY90
A7Q1713	151-0441-00	B010100	B010961	TRANSISTOR,SIG:BIPOLAR,NPN;15V,40MA,1.0GHZ	04713	2N3839
A7Q1713	151-0212-00	B010962		TRANSISTOR,SIG:BIPOLAR,NPN;15V,50MA,1.0 GHZ (CG5011 ONLY)	04713	BFY90
A7Q1715	151-0271-00			TRANSISTOR,SIG:BIPOLAR,PNP;15V,30MA,2.0GHZ	04713	MPSH69
A7Q1725	151-0271-00			TRANSISTOR,SIG:BIPOLAR,PNP;15V,30MA,2.0GHZ	04713	MPSH69
A7Q1808	151-1066-00			TRANSISTOR,SIG:JFET,P-CH;10V,10MA(MIN),75	27014	F88025D
A7Q1814	151-0134-00			TRANSISTOR,SIG:BIPOLAR,PNP;60V,600MA,200MHZ	04713	2N2905A
A7R1004	322-3326-00			RES,FXD,FILM:24.3K OHM,1%,0.2W,TC-TO	91637	CCF50-2F24301F
A7R1007	322-3243-00			RES,FXD,FILM:3.32K OHM,1%,0.2W,TC=TO	91637	CCF50-1-G33200F
A7R1008	313-1102-00			RES,FXD,FILM:1K OHM,5%,0.2W	91637	CCF50-2-10000J
A7R1012	322-3193-00			RES,FXD,FILM:1K OHM,1%,0.2W,TC=TO	91637	CCF501G10000F
A7R1014	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A7R1015	313-1102-00			RES,FXD,FILM:1K OHM,5%,0.2W	91637	CCF50-2-10000J
A7R1018	322-3193-00			RES,FXD,FILM:1K OHM,1%,0.2W,TC=T0	91637	CCF501G10000F
A7R1030	322-3089-00			RES,FXD,FILM:82.5 OHM,1%.0.2W,TC=T0	57668	CRB20 FXE 82E5
A7R1032	322-3105-00			RES,FXD,FILM:121 OHM,1%,0.2W,TC=T0	91637	CCF501G121R0F
A7R1103	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0	56845	CCF50-2-G4751FT
A7R1104	322-3226-00			RES,FXD,FILM:2.21K OHM,1%,0.2W,TC=T0	91637	CCF501G22100F
A7R1111	313-1201-00			RES,FXD,FILM:200 OHM,5%,0.2W	91637	CCF50-2-200R0J
A7R1112	322-3356-00			RES,FXD,FILM:49.9K OHM,1%,0.2W,TC=T0	91637	CCF501G49901F
A7R1113	322-3356-00			RES,FXD,FILM:49.9K OHM,1%,0.2W,TC=T0	91637	CCF501G49901F
A7R1114	322-3356-00			RES,FXD,FILM:49.9K OHM,1%,0.2W,TC=T0	91637	CCF501G49901F
A7R1116	322-3154-00			RES,FXD,FILM:392 OHM,1%,0.2W,TC=T0	91637	CCF501G392R0F
A7R1117	322-3033-00			RES,FXD,FILM:21.5 OHM,1%,0.2W,TC=T0	91637	CCF50-2F21R50F
A7R1121	322-3162-00			RES,FXD,FILM:475 OHM,1%,0.2W,TC=T0	91637	CCF50G475R0F
A7R1122	322-3261-00			RES,FXD,FILM:5.11K OHM,1%,0.2W,TC=T0	91637	CCF50G5111FT
A7R1131	322-3297-00			RES,FXD,FILM:12.1K OHM,1%,0.2W,TC=T0	91637	CCF501G12101F
A7R1133	301-0121-00			RES,FXD,FILM:120 OHM,5%,0.5W	19701	5053CX120K0
A7R1135	322-3261-00			RES,FXD,FILM:5.11K OHM,1%,0.2W,TC=T0	91637	CCF50G5111FT
A7R1200	311-2258-00			RES,VAR,NONWW:TRMR,1K OHM,20%,0.5WLINEAR	TK2073	GF06V2 102 M L20
A7R1201	322-3185-00			RES,FXD,FILM:825 OHM,1%,0.2W,TC=T0	91637	CCF501G825R0F
A7R1202	311-2269-00			RES,VAR,NONWW:TRMR,20K OHM,20%,0.5WLINEAR	32997	ORDER BY DESCRIPTION
A7R1203	322-3177-00	B010100	B010207	RES,FXD,FILM:681 OHM,1%,0.2W,TC=T0	91637	CCF50-2G681R0F
A7R1203	322-3162-00	B010208		RES,FXD,FILM:475 OHM,1%,0.2W,TC=T0 (CG5010 & OPTION 01 ONLY)	91637	CCF50G475R0F
A7R1203	322-3177-00	B010100	B010399	RES,FXD,FILM:681 OHM,1%,0.2W,TC=T0	91637	CCF50-2G681R0F
A7R1203	322-3162-00	B010400		RES,FXD,FILM:475 OHM,1%,0.2W,TC=T0 (CG5011 ONLY)	91637	CCF50G475R0F
A7R1204	322-3162-00			RES,FXD,FILM:475 OHM,1%,0.2W,TC=T0	91637	CCF50G475R0F
A7R1208	313-1102-00			RES,FXD,FILM:1K OHM,5%,0.2W	91637	CCF50-2-10000J
A7R1209	321-0346-00			RES,FXD,FILM:39.2K OHM,1%,0.125W,TC=T0	91637	CMF55116G39201F
A7R1215	321-0388-00			RES,FXD,FILM:107K OHM,1%,0.125W,TC=T0	91637	CMF55116G10702F
A7R1217	322-3033-00			RES,FXD,FILM:21.5 OHM,1%,0.2W,TC=T0	91637	CCF50-2F21R50F
A7R1219	313-1102-00			RES,FXD,FILM:1K OHM,5%,0.2W	91637	CCF50-2-10000J
A7R1300	311-2270-00			RES,VAR,NONWW:TRMR,10K OHM,20%,0.5WLINEAR	32997	ORDER BY DESCRIPTION
A7R1301	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A7R1305	322-3154-00			RES,FXD,FILM:392 OHM,1%,0.2W,TC=T0	91637	CCF501G392R0F
A7R1307	322-3154-00			RES,FXD,FILM:392 OHM,1%,0.2W,TC=T0	91637	CCF501G392R0F
A7R1314	321-0816-07			RES,FXD,FILM:5K OHM,0.1%,0.125W,TC=T9	19701	5033RE5K000B
A7R1316	321-1068-07			RES,FXD,FILM:50.5 OHM,0.1%,0.125W,TC=T9	57668	RB14 BZE 50E5
A7R1326	321-0816-07			RES,FXD,FILM:5K OHM,0.1%,0.125W,TC=T9	19701	5033RE5K000B
A7R1328	321-1068-07			RES,FXD,FILM:50.5 OHM,0.1%,0.125W,TC=T9	57668	RB14 BZE 50E5
A7R1400	307-0106-00			RES,FXD,CMPSN:4.7 OHM,5%,0.25W	01121	CB47G5
A7R1401	322-3239-00			RES,FXD,FILM:3.01K OHM,1%,0.2W,TC=T0	91637	CCF501G30100F
A7R1402	307-0106-00			RES,FXD,CMPSN:4.7 OHM,5%,0.25W	01121	CB47G5
A7R1403	322-3251-00			RES,FXD,FILM:4.02K OHM,1%,0.2W,TC=T0	91637	CCF501G40200F
A7R1404	322-3281-00			RES,FXD,FILM:8.25K OHM,1%,0.2W,TC=T0	91637	CCF501G82500F
A7R1405	322-3164-00			RES,FXD,FILM:499 OHM,1%,0.2W,TC=T0	91637	CCF501G499R0F
A7R1406	322-3093-00			RES,FXD,FILM:90.9 OHM,1%,0.2W,TC=T0	91637	CCF50-2F90R90F
A7R1407	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A7R1408	311-2269-00			RES,VAR,NONWW:TRMR,20K OHM,20%,0.5WLINEAR	32997	ORDER BY DESCRIPTION
A7R1410	322-3261-00			RES,FXD,FILM:5.11K OHM,1%,0.2W,TC=T0	91637	CCF50G5111FT
A7R1411	313-1101-00			RES,FXD,FILM:100 OHM,5%,0.2W	91637	CCF50-2-100R0J
A7R1414	322-3050-00			RES,FXD,FILM:32.4 OHM,1%,0.2W,TC=T0	91637	CCF501G32R40F
A7R1420	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A7R1421	321-0222-03			RES,FXD,FILM:2.0K OHM,0.25%,0.125W,TC=T2	19701	5033RC2K000C
A7R1422	321-0318-02			RES,FXD,FILM:20.0K 0.5%,0.125W,TC=T2	19701	5033RC20K00D
A7R1423	313-1102-00			RES,FXD,FILM:1K OHM,5%,0.2W	91637	CCF50-2-10000J

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A7R1424	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A7R1425	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A7R1427	313-1102-00			RES,FXD,FILM:1K OHM,5%,0.2W	91637	CCF50-2-10000J
A7R1428	313-1201-00			RES,FXD,FILM:200 OHM,5%,0.2W	91637	CCF50-2-200R0J
A7R1429	321-0771-01			RES,FXD,FILM:50 OHM,0.5%,0.125W,TC=T0	57668	RB14DXE 50E
A7R1500	322-3054-00			RES,FXD,FILM:35.7 OHM,1%,0.2W,TC=T0	91637	CCF50-2F35R70F
A7R1501	313-1750-00			RES,FXD,FILM:75 OHM,5%,0.2W	91637	CCF50-2-75R00J
A7R1502	313-1102-00			RES,FXD,FILM:1K OHM,5%,0.2W	91637	CCF50-2-10000J
A7R1503	322-3164-00			RES,FXD,FILM:499 OHM,1%,0.2W,TC=T0	91637	CCF501G499R0F
A7R1504	322-3281-00			RES,FXD,FILM:8.25K OHM,1%,0.2W,TC=T0	91637	CCF501G82500F
A7R1505	313-1101-00			RES,FXD,FILM:100 OHM,5%,0.2W	91637	CCF50-2-100R0J
A7R1506	313-1102-00			RES,FXD,FILM:1K OHM,5%,0.2W	91637	CCF50-2-10000J
A7R1507	307-0106-00			RES,FXD,CMPSN:4.7 OHM,5%,0.25W	01121	CB47G5
A7R1508	313-1201-00			RES,FXD,FILM:200 OHM,5%,0.2W	91637	CCF50-2-200R0J
A7R1509	307-0106-00			RES,FXD,CMPSN:4.7 OHM,5%,0.25W	01121	CB47G5
A7R1510	322-3173-00			RES,FXD,FILM:619 OHM,1%,0.2W,TC=T0	91637	CCF50-2F619R0F
A7R1511	313-1102-00			RES,FXD,FILM:1K OHM,5%,0.2W	91637	CCF50-2-10000J
A7R1512	322-3230-00			RES,FXD,FILM:2.43K OHM,1%,0.2W,TC=T0	91637	CCF50-2-G2431FT
A7R1515	322-3230-00			RES,FXD,FILM:2.43K OHM,1%,0.2W,TC=T0	91637	CCF50-2-G2431FT
A7R1516	313-1101-00			RES,FXD,FILM:100 OHM,5%,0.2W	91637	CCF50-2-100R0J
A7R1517	322-3261-00			RES,FXD,FILM:5.11K OHM,1%,0.2W,TC=T0	91637	CCF50G5111FT
A7R1519	313-1102-00			RES,FXD,FILM:1K OHM,5%,0.2W	91637	CCF50-2-10000J
A7R1525	322-3356-00			RES,FXD,FILM:49.9K OHM,1%,0.2W,TC=T0	91637	CCF501G49901F
A7R1526	322-3218-00			RES,FXD,FILM:1.82K OHM,1%,0.2W,TC=T0	91637	CCF501G18200F
A7R1527	311-2271-00			RES,VAR,NONWW:TRMR,5K OHM,20%,0.5WLINEAR	TK2073	GF06VT2 502 M L20
A7R1602	322-3030-00			RES,FXD,FILM:20 OHM,1%,0.2W,TC=T0	91637	CCF50G20R00F
A7R1604	322-3213-00			RES,FXD,FILM:1.62K OHM,1%,0.2W,TC=T0	91637	CCF501G16200F
A7R1606	322-3213-00			RES,FXD,FILM:1.62K OHM,1%,0.2W,TC=T0	91637	CCF501G16200F
A7R1607	322-3069-00			RES,FXD,FILM:51.1 OHM,1%,0.2W,TC=T0	91637	CCF501G51R10F
A7R1608	322-3058-00			RES,FXD,FILM:39.2 OHM,1%,0.2W,TC=T0	91637	CCF50-1G39R20F
A7R1609	317-0220-00			RES,FXD,CMPSN:22 OHM,5%,0.125W	01121	BB2205
A7R1610	322-3033-00			RES,FXD,FILM:21.5 OHM,1%,0.2W,TC=T0	91637	CCF50-2F21R50F
A7R1611	313-1101-00			RES,FXD,FILM:100 OHM,5%,0.2W	91637	CCF50-2-100R0J
A7R1612	322-3114-00			RES,FXD,FILM:150 OHM,1%,0.2W,TC=T0	91637	CCF50-2-G1500F
A7R1613	307-0106-00			RES,FXD,CMPSN:4.7 OHM,5%,0.25W	01121	CB47G5
A7R1614	322-3069-00			RES,FXD,FILM:51.1 OHM,1%,0.2W,TC=T0	91637	CCF501G51R10F
A7R1615	313-1101-00			RES,FXD,FILM:100 OHM,5%,0.2W	91637	CCF50-2-100R0J
A7R1617	322-3033-00			RES,FXD,FILM:21.5 OHM,1%,0.2W,TC=T0	91637	CCF50-2F21R50F
A7R1618	321-0222-03			RES,FXD,FILM:2.0K OHM,0.25%,0.125W,TC=T2	19701	5033RC2K000C
A7R1619	322-3150-00			RES,FXD,FILM:357 OHM,1%,0.2W,TC=T0	91637	CCF501G357R0F
A7R1620	317-0121-00			RES,FXD,CMPSN:120 OHM,5%,0.125W	01121	BB1215
A7R1621	322-3050-00			RES,FXD,FILM:32.4 OHM,1%,0.2W,TC=T0	91637	CCF501G32R40F
A7R1622	317-0180-00			RES,FXD,CMPSN:18 OHM,5%,0.125W	01121	BB1805
A7R1623	322-3158-00			RES,FXD,FILM:432 OHM,1%,0.2W,TC=T0	57668	CRB2D FXE 432
A7R1624	317-0471-00			RES,FXD,CMPSN:470 OHM,5%,0.125W	01121	BB4715
A7R1625	322-3012-00			RES,FXD,FILM:13 OHM,1%,0.2W,TC=T0	91637	CCF50-2F13RR0F
A7R1626	317-0101-00			RES,FXD,CMPSN:100 OHM,5%,0.125W	01121	BB1015
A7R1627	317-0750-00			RES,FXD,CMPSN:75 OHM,5%,0.125W	01121	BB7505
A7R1629	322-3048-00			RES,FXD,FILM:30.9 OHM,1%,0.2W,TC=T0	91637	CCF501G30R90F
A7R1630	317-0330-00			RES,FXD,CMPSN:33 OHM,5%,0.125W	01121	BB3305
A7R1700	322-3189-00			RES,FXD,FILM:909 OHM,1%,0.2W,TC=T0	91637	CCF501G909F0R
A7R1702	322-3189-00			RES,FXD,FILM:909 OHM,1%,0.2W,TC=T0	91637	CCF501G909F0R
A7R1703	322-3069-00			RES,FXD,FILM:51.1 OHM,1%,0.2W,TC=T0	91637	CCF501G51R10F
A7R1704	322-3213-00			RES,FXD,FILM:1.62K OHM,1%,0.2W,TC=T0	91637	CCF501G16200F
A7R1706	322-3213-00			RES,FXD,FILM:1.62K OHM,1%,0.2W,TC=T0	91637	CCF501G16200F

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A7R1708	317-0220-00			RES,FXD,CMPSN:22 OHM,5%,0.125W	01121	BB2205
A7R1710	317-0220-00			RES,FXD,CMPSN:22 OHM,5%,0.125W	01121	BB2205
A7R1711	322-3033-00			RES,FXD,FILM:21.5 OHM,1%,0.2W,TC=T0	91637	CCF50-2F21R50F
A7R1712	322-3033-00			RES,FXD,FILM:21.5 OHM,1%,0.2W,TC=T0	91637	CCF50-2F21R50F
A7R1713	322-3069-00			RES,FXD,FILM:51.1 OHM,1%,0.2W,TC=T0	91637	CCF501G51R10F
A7R1714	307-0106-00			RES,FXD,CMPSN:4.7 OHM,5%,0.25W	01121	CB47G5
A7R1715	322-3114-00			RES,FXD,FILM:150 OHM,1%,0.2W,TC=T0	91637	CCF50-2-G1500F
A7R1716	313-1101-00			RES,FXD,FILM:100 OHM,5%,0.2W	91637	CCF50-2-100R0J
A7R1717	322-3033-00			RES,FXD,FILM:21.5 OHM,1%,0.2W,TC=T0	91637	CCF50-2F21R50F
A7R1720	322-3048-00			RES,FXD,FILM:30.9 OHM,1%,0.2W,TC=T0	91637	CCF501G30R90F
A7R1721	317-0750-00			RES,FXD,CMPSN:75 OHM,5%,0.125W	01121	BB7505
A7R1722	317-0180-00			RES,FXD,CMPSN:18 OHM,5%,0.125W	01121	BB1805
A7R1724	317-0101-00			RES,FXD,CMPSN:100 OHM,5%,0.125W	01121	BB1015
A7R1725	322-3050-00			RES,FXD,FILM:32.4 OHM,1%,0.2W,TC=T0	91637	CCF501G32R40F
A7R1726	303-0820-00			RES,FXD,CMPSN:82 OHM,5%,1W	01121	GB8205
A7R1727	317-0471-00			RES,FXD,CMPSN:470 OHM,5%,0.125W	01121	BB4715
A7R1728	303-0820-00			RES,FXD,CMPSN:82 OHM,5%,1W	01121	GB8205
A7R1729	317-0121-00			RES,FXD,CMPSN:120 OHM,5%,0.125W	01121	BB1215
A7R1730	322-3012-00			RES,FXD,FILM:13 OHM,1%,0.2W,TC=T0	91637	CCF50-2F13RR0F
A7R1802	322-3472-00			RES,FXD,FILM:806K OHM,1%,0.2W,TC=T0	91637	CCF501G80602F
A7R1803	321-0193-02			RES,FXD,FILM:1K OHM,0.5%,0.125W,TC=T2	19701	5033RC1K000D
A7R1808	322-3261-00			RES,FXD,FILM:5.11K OHM,1%,0.2W,TC=T0	91637	CCF50G5111FT
A7R1809	321-0222-03			RES,FXD,FILM:2.0K OHM,0.25%,0.125W,TC=T2	19701	5033RC2K000C
A7R1812	322-3150-00			RES,FXD,FILM:357 OHM,1%,0.2W,TC=T0	91637	CCF501G357R0F
A7R1814	322-3030-00			RES,FXD,FILM:20 OHM,1%,0.2W,TC=T0	91637	CCF50G20R00F
A7R1816	322-3165-00			RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0	91637	CCF501G511R0F
A7R1817	322-3033-00			RES,FXD,FILM:21.5 OHM,1%,0.2W,TC=T0	91637	CCF50-2F21R50F
A7R1819	313-1101-00			RES,FXD,FILM:100 OHM,5%,0.2W	91637	CCF50-2-100R0J
A7R1824	322-3158-00			RES,FXD,FILM:432 OHM,1%,0.2W,TC=T0	57668	CRB2D FXE 432
A7T1407	120-0582-00			XFMR,TOROID:	0JR03	120-0582-00
A7TP1200	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,:MALE,STR,0.025	22526	48283-036
A7TP1302	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,:MALE,STR,0.025	22526	48283-036
A7U1020	156-0796-00			IC,DIGITAL:CMOS,SHIFT REGISTER;8-STAGE	04713	MC14094BCP
A7U1022	156-1245-00			IC,LINEAR:BIPOLAR,TRANSISTOR ARRAY;7,NPN	04713	MC1413P
A7U1130	156-0796-00			IC,DIGITAL:CMOS,SHIFT REGISTER;8-STAGE	04713	MC14094BCP
A7U1132	156-1245-00			IC,LINEAR:BIPOLAR,TRANSISTOR ARRAY;7,NPN	04713	MC1413P
A7U1210	156-1156-00			IC,LINEAR:BIFET,OP-AMP	27014	LF356N (D/C 8806)
A7U1234	156-0796-00			IC,DIGITAL:CMOS,SHIFT REGISTER;8-STAGE	04713	MC14094BCP
A7U1236	156-1245-00			IC,LINEAR:BIPOLAR,TRANSISTOR ARRAY;7,NPN	04713	MC1413P
A7U1412	156-1156-00			IC,LINEAR:BIFET,OP-AMP	27014	LF356N (D/C 8806)
A7U1619	156-0067-00			IC,LINEAR:BIPOLAR,OP-AMP	04713	MC1741CP1
A7U1802	156-0067-00			IC,LINEAR:BIPOLAR,OP-AMP	04713	MC1741CP1
A7U1824	156-0067-00			IC,LINEAR:BIPOLAR,OP-AMP	04713	MC1741CP1
A7U1833	156-0796-00			IC,DIGITAL:CMOS,SHIFT REGISTER;8-STAGE	04713	MC14094BCP
A7U1835	156-1245-00			IC,LINEAR:BIPOLAR,TRANSISTOR ARRAY;7,NPN	04713	MC1413P
A7VR1032	152-0647-00			DIODE,ZENER:,;6.8V,5%,0.4W;1N957B,DO-7	04713	1N957B
A7VR1112	152-0123-00			SEMICOND DVC,DI:ZEN,SI,9V,5%,0.5W	12954	DT720623U (1N935A)
A7VR1412	152-0281-00			DIODE,ZENER:,;22V,5%,0.4W;1N969B,DO-35	04713	1N969BRL
A7VR1421	152-0195-00			DIODE,ZENER:,;5.1V,5%,0.4W;1N751A FMLY	04713	SZ11755RL
A7VR1422	152-0195-00			DIODE,ZENER:,;5.1V,5%,0.4W;1N751A FMLY	04713	SZ11755RL
A7VR1500	152-0195-00			DIODE,ZENER:,;5.1V,5%,0.4W;1N751A FMLY	04713	SZ11755RL
A7VR1600	152-0195-00			DIODE,ZENER:,;5.1V,5%,0.4W;1N751A FMLY	04713	SZ11755RL
A7VR1823	152-0217-00			DIODE,ZENER:,;8.2V,5%,0.4W;1N959B FMLY	04713	SZG20RL
A7VR1824	152-0217-00			DIODE,ZENER:,;8.2V,5%,0.4W;1N959B FMLY	04713	SZG20RL

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A7W1005	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225L	24546	OMA 07
A8	671-1338-00			CIRCUIT BD ASSY:HIGH EDGE	80009	671-1338-00
A8C1113	281-0814-00			CAP,FXD,CER DI:100 PF,10%,100V	04222	SA102A101KAA
A8C1123	281-0819-00			CAP,FXD,CER DI:33 PF,5%,50V	04222	SA102A330JAA
A8C1207	281-0775-01			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A8C1219	281-0775-01			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A8C1220	281-0775-01			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A8C1221	281-0775-01			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A8C1300	290-0261-00			CAP,FXD,ELCTLT:6.8UF,10%,35V	31433	T110B685K035AS
A8C1301	290-0261-00			CAP,FXD,ELCTLT:6.8UF,10%,35V	31433	T110B685K035AS
A8C1302	290-0177-00			CAP,FXD,ELCTLT:1UF,20%,50V	31433	T322B105M050AS
A8C1315	281-0814-00			CAP,FXD,CER DI:100 PF,10%,100V	04222	SA102A101KAA
A8C1320	281-0814-00			CAP,FXD,CER DI:100 PF,10%,100V	04222	SA102A101KAA
A8C1400	281-0771-00			CAP,FXD,CER DI:2200PF,20%,200V	04222	SA102C222MAA
A8C1412	281-0770-00			CAP,FXD,CER DI:1000PF,20%,100V	04222	SA101C102MAA
A8C1424	281-0762-00			CAP,FXD,CER DI:27PF,20%,100V	04222	SA102A270MAA
A8C1425	285-1082-00			CAP,FXD,PLASTIC:0.47UF,20%,200V	04009	TEK33MMR.47
A8C1430	290-0426-00			CAP,FXD,ELCTLT:330UF,20%,6V	31433	T322 F337M006AS
A8C1500	285-1142-00			CAP,FXD,PLASTIC:0.01UF,1%,200VDC	19396	103F02PP460
A8C1510	281-0819-00			CAP,FXD,CER DI:33 PF,5%,50V	04222	SA102A330JAA
A8C1514	281-0768-00			CAP,FXD,CER DI:470PF,20%,100V	04222	SA101A471KAA
A8C1517	281-0763-00			CAP,FXD,CER DI:47PF,10%,100V	04222	SA102A470KAA
A8C1519	281-0763-00			CAP,FXD,CER DI:47PF,10%,100V	04222	SA102A470KAA
A8C1600	281-0768-00			CAP,FXD,CER DI:470PF,20%,100V	04222	SA101A471KAA
A8CR1124	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A8CR1125	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A8CR1219	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A8CR1222	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A8CR1223	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A8CR1224	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A8CR1320	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A8CR1321	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A8CR1322	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A8CR1323	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A8CR1330	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A8CR1400	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A8CR1405	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A8CR1501	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A8CR1511	152-0951-00			DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35	50088	1N6263
A8CR1515	152-0951-00			DIODE,SIG:SCHTKY,;60V,2.25PF;1N6263,DO-35	50088	1N6263
A8CR1530	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A8K1230	148-0076-00			RELAY,REED:1 FORM A,COIL 5VDC 500 OHM,	12617	HE721A6314
A8K1530	148-0076-00			RELAY,REED:1 FORM A,COIL 5VDC 500 OHM,	12617	HE721A6314
A8K1630	148-0126-00			RELAY,REED:1 FORM A, COIL 5 VDC 400 OHM,	21317	051 AY/400BAA
A8Q1100	151-1059-00			TRANSISTOR,SIG:JFET,N-CH;10V,30MA(MIN),30	04713	MPF4391
A8Q1101	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A8Q1200	151-1059-00			TRANSISTOR,SIG:JFET,N-CH;10V,30MA(MIN),30	04713	MPF4391
A8Q1201	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A8Q1224	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A8Q1225	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A8Q1320	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A8Q1321	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A8Q1322	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A801323	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A801330	151-0331-00			TRANSISTOR:NPN,SI	03508	X40CR115
A801410	151-0696-00			TRANSISTOR,PWR:BIPOLAR,PNP;180/200V,1.5A	0JR04	2SA968B
A801411	151-0279-00			TRANSISTOR,SIG:BIPOLAR,NPN;300V,150MA,30MHZ	04713	2N5058
A801412	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A801420	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A801421	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A801424	151-0443-00			TRANSISTOR,SIG:BIPOLAR,PNP;300V,500MA,50MHZ	04713	MPSA92
A801500	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A801501	151-0347-00			TRANSISTOR,SIG:BIPOLAR,NPN;160V,600MA	04713	2N5551
A801502	151-0350-00			TRANSISTOR,SIG:BIPOLAR,PNP;150V,600MA	04713	2N5401
A801503	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A801510	151-0350-00			TRANSISTOR,SIG:BIPOLAR,PNP;150V,600MA	04713	2N5401
A801511	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A801515	151-0350-00			TRANSISTOR,SIG:BIPOLAR,PNP;150V,600MA	04713	2N5401
A801525	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A801600	151-0350-00			TRANSISTOR,SIG:BIPOLAR,PNP;150V,600MA	04713	2N5401
A8R1100	321-0926-07			RES,FXD,FILM:4K OHM,0.1%,0.125W,TC=T9	19701	5033RE4K00B
A8R1101	321-0466-00			RES,FXD,FILM:698K OHM,1%,0.125W,TC=T0	91637	CMF55116G69802F
A8R1110	322-3314-00			RES,FXD,FILM:18.2K OHM,1%,0.2W,TC=T0	91637	CCF501G18201F
A8R1111	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0	56845	CCF50-2-G4751FT
A8R1112	321-0648-04			RES,FXD,FILM:500K OHM,0.1%,0.125W,TC=T2	19701	5033RC500K0B
A8R1120	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A8R1121	322-3373-00			RES,FXD,FILM:75K OHM,1%,0.2W,TC=T0	91637	CCF501G75001F
A8R1122	315-0332-00			RES,FXD,FILM:3.3K OHM,5%,0.25W	57668	NTR25J-E03K3
A8R1124	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A8R1125	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0	56845	CCF50-2-G4751FT
A8R1201	321-0193-07			RES,FXD,FILM:1K OHM,0.1%,0.125W,TC=T9	19701	5033RE1K000B
A8R1202	321-0816-03			RES,FXD,FILM:5K OHM,0.25%,0.125W,TC=T2	19701	5033RC5K000C
A8R1203	321-0603-07			RES,FXD,FILM:15K OHM,0.1%,0.125W,TC=T9	19701	5033RE15K00B
A8R1204	321-0666-07			RES,FXD,FILM:3.04K OHM,0.1%,0.125W,TC=T9	19701	5033RE3K040B
A8R1205	322-3318-00			RES,FXD,FILM:20K OHM,1%,0.2W,TC=T0	91637	CCF501G20001F
A8R1206	321-0076-00			RES,FXD,FILM:60.4 OHM,1%,0.125W,TC=T0	91637	CMF55116G0R40F
A8R1208	313-1751-00			RES,FXD,FILM:750 OHM,5%,0.2W	91637	CCF50-2-750R0J
A8R1210	322-3314-00			RES,FXD,FILM:18.2K OHM,1%,0.2W,TC=T0	91637	CCF501G18201F
A8R1211	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0	56845	CCF50-2-G4751FT
A8R1212	321-0373-04			RES,FXD,FILM:75.0K OHM,0.1%,0.125W,TC=T2	19701	5033RC75K00B
A8R1213	321-0289-07			RES,FXD,FILM:10.0K OHM,0.1%,0.125W,TC=T9	19701	5033RE10K00B
A8R1214	321-0816-03			RES,FXD,FILM:5K OHM,0.25%,0.125W,TC=T2	19701	5033RC5K000C
A8R1216	321-0603-07			RES,FXD,FILM:15K OHM,0.1%,0.125W,TC=T9	19701	5033RE15K00B
A8R1217	322-3327-00			RES,FXD,FILM:24.9K OHM,1%,0.2W,TC=T0	91637	CCF50-2-G24901FT
A8R1218	322-3327-00			RES,FXD,FILM:24.9K OHM,1%,0.2W,TC=T0	91637	CCF50-2-G24901FT
A8R1222	313-1752-00			RES,FXD,FILM:7.5K OHM,5%,0.2W	91637	CCF50-2-75000J
A8R1223	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0	56845	CCF50-2-G4751FT
A8R1224	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0	56845	CCF50-2-G4751FT
A8R1225	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0	56845	CCF50-2-G4751FT
A8R1226	322-3261-00			RES,FXD,FILM:5.11K OHM,1%,0.2W,TC=T0	91637	CCF50G5111FT
A8R1227	313-1104-00			RES,FXD,FILM:100K OHM,5%,0.2W	91637	CCF50-2-10002J
A8R1230	308-0240-00			RES,FXD,WW:2 OHM,5%,3W	91637	CW-2B-2R000J
A8R1300	311-2270-00			RES,VAR,NONWW:TRMR,10K OHM,20%,0.5WLINEAR	32997	ORDER BY DESCRIPTION
A8R1301	311-2258-00			RES,VAR,NONWW:TRMR,1K OHM,20%,0.5WLINEAR	TK2073	GF06V2 102 M L20
A8R1302	322-3326-00			RES,FXD,FILM:24.3K OHM,1%,0.2W,TC-T0	91637	CCF50-2F24301F
A8R1310	322-3327-00			RES,FXD,FILM:24.9K OHM,1%,0.2W,TC=T0	91637	CCF50-2-G24901FT
A8R1311	322-3222-00			RES,FXD,FILM:2K OHM,1%,0.2W,TC=T0	91637	CCF501G20000F
A8R1312	322-3350-00			RES,FXD,FILM:43.2K OHM,1%,0.2W,TC=T0	91637	CCF502G4322FT
A8R1313	322-3222-00			RES,FXD,FILM:2K OHM,1%,0.2W,TC=T0	91637	CCF501G20000F

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A8R1314	321-0348-00			RES,FXD,FILM:41.2K OHM,1%,0.125W,TC=T0	91637	CMF55116G41201F
A8R1321	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0	56845	CCF50-2-G4751FT
A8R1322	313-1202-00			RES,FXD,FILM:2K OHM,5%,0.2W	91637	CCF50-2-20000J
A8R1323	321-0193-07			RES,FXD,FILM:1K OHM,0.1%,0.125W,TC=T9	19701	5033RE1K000B
A8R1324	322-3239-00			RES,FXD,FILM:3.01K OHM,1%,0.2W,TC=T0	91637	CCF501G30100F
A8R1330	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A8R1331	313-1202-00			RES,FXD,FILM:2K OHM,5%,0.2W	91637	CCF50-2-20000J
A8R1400	322-3385-00			RES,FXD,FILM:100K OHM,1%,0.2W,TC=T0	91637	CCF501G10002F
A8R1401	311-2269-00			RES,VAR,NONWW:TRMR,20K OHM,20%,0.5WLINEAR	32997	ORDER BY DESCRIPTION
A8R1410	315-0153-00			RES,FXD,FILM:15K OHM,5%,0.25W	19701	5043CX15K00J
A8R1411	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A8R1412	322-3246-00			RES,FXD,FILM:3.57K OHM,1%,0.2W,TC=T0	91637	CCF501G35700F
A8R1420	322-3297-00			RES,FXD,FILM:12.1K OHM,1%,0.2W,TC=T0	91637	CCF501G12101F
A8R1421	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0	56845	CCF50-2-G4751FT
A8R1422	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A8R1423	313-1102-00			RES,FXD,FILM:1K OHM,5%,0.2W	91637	CCF50-2-10000J
A8R1425	313-1202-00			RES,FXD,FILM:2K OHM,5%,0.2W	91637	CCF50-2-20000J
A8R1426	322-3054-00			RES,FXD,FILM:35.7 OHM,1%,0.2W,TC=T0	91637	CCF50-2F35R70F
A8R1430	322-3261-00			RES,FXD,FILM:5.11K OHM,1%,0.2W,TC=T0	91637	CCF50G5111FT
A8R1431	322-3354-00			RES,FXD,FILM:47.5K OHM,1%,0.2W,TC=T0	91637	CCF501G47501F
A8R1433	322-3258-00			RES,FXD,FILM:4.75K OHM,1%,0.2W,TC=T0	56845	CCF50-2-G4751FT
A8R1434	322-3158-00			RES,FXD,FILM:432 OHM,1%,0.2W,TC=T0	57668	CRB2D FXE 432
A8R1501	315-0241-00			RES,FXD,FILM:240 OHM,5%,0.25W	19701	5043CX240R0J
A8R1510	313-1102-00			RES,FXD,FILM:1K OHM,5%,0.2W	91637	CCF50-2-10000J
A8R1511	315-0392-00			RES,FXD,FILM:3.9K OHM,5%,0.25W	57668	NTR25J-E03K9
A8R1512	313-1101-00			RES,FXD,FILM:100 OHM,5%,0.2W	91637	CCF50-2-100R0J
A8R1513	315-0332-00			RES,FXD,FILM:3.3K OHM,5%,0.25W	57668	NTR25J-E03K3
A8R1515	313-1101-00			RES,FXD,FILM:100 OHM,5%,0.2W	91637	CCF50-2-100R0J
A8R1516	313-1102-00			RES,FXD,FILM:1K OHM,5%,0.2W	91637	CCF50-2-10000J
A8R1518	315-0242-00			RES,FXD,FILM:2.4K OHM,5%,0.25W	57668	NTR25J-E02K4
A8R1519	315-0242-00			RES,FXD,FILM:2.4K OHM,5%,0.25W	57668	NTR25J-E02K4
A8R1520	313-1153-00			RES,FXD,FILM:15K,5%,0.2W	91637	CCF50-2-15001J
A8R1530	321-0318-07			RES,FXD,FILM:20.0K OHM,0.1%,0.125W,TC=T9	19701	5033RE20K00BOM
A8R1535	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A8R1600	315-0243-00			RES,FXD,FILM:24K OHM,5%,0.25W	57668	NTR25J-E24K0
A8R1610	321-0771-01			RES,FXD,FILM:50 OHM,0.5%,0.125W,TC=T0	57668	RB14DXE 50E
A8TP1100	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025	22526	48283-036
A8TP1200	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025	22526	48283-036
A8TP1202	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025	22526	48283-036
A8TP1210	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025	22526	48283-036
A8TP1300	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025	22526	48283-036
A8TP1302	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025	22526	48283-036
A8TP1400	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025	22526	48283-036
A8TP1402	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025	22526	48283-036
A8TP1420	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025	22526	48283-036
A8TP1500	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025	22526	48283-036
A8TP1510	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025	22526	48283-036
A8TP1520	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025	22526	48283-036
A8U1110	156-0854-00			IC,LINEAR:BIPOLAR,OP-AMP;LOW INPUT BIAS	27014	LM308AN
A8U1130	156-0796-00			IC,DIGITAL:CMOS,SHIFT REGISTER;8-STAGE	04713	MC14094BCP
A8U1210	156-0067-00			IC,LINEAR:BIPOLAR,OP-AMP	04713	MC1741CP1
A8U1211	156-0067-00			IC,LINEAR:BIPOLAR,OP-AMP	04713	MC1741CP1
A8U1220	156-0158-00			IC,LINEAR:BIPOLAR,OP-AMP;DUAL;MC1458P1	04713	MC1458P1

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A8U1221	156-0158-00			IC,LINEAR:BIPOLAR,OP-AMP;DUAL;MC1458P1	04713	MC1458P1
A8U1230	156-0350-00			IC,DIGITAL:CMOS,GATE;2-INPUT NAND;4011A	04713	MC14011UBCP
A8U1410	156-1156-00			IC,LINEAR:BIFET,OP-AMP	27014	LF356N (D/C 8806)
A8U1430	156-0109-00			IC,OPTO:,ISOLATOR;ILED-PHOTOTRAN,ISOV 1,500	0JR04	TLP 535
A8U1532	156-0109-00			IC,OPTO:,ISOLATOR;ILED-PHOTOTRAN,ISOV 1,500	0JR04	TLP 535
A8U1620	156-0384-00			IC,DIGITAL:LSTTL,GATES;QUAD 2-INPUT NAND	01295	SN74LS03N
A8VR1205	152-0461-00			DIODE,SIG:,;6.2V,5%,0.4W;1N821,DO-7	04713	1N821
A8VR1324	152-0647-00			DIODE,ZENER:,;6.8V,5%,0.4W;1N957B,DO-7	04713	1N957B
A8VR1430	152-0662-00			DIODE,ZENER:,;5V,1%,0.4W;1N751 FMLY,DO-7	04713	SZG195RL
A8A1	671-1339-00			CIRCUIT BD ASSY:GPIB INTERFACE	80009	671-1339-00
A9	671-1344-00	B010100	B010209	CIRCUIT BD ASSY:CPU	80009	671-1344-00
A9	671-1344-01	B010210		CIRCUIT BD ASSY:CPU (CG5010 & OPTION 01 ONLY)	80009	671-1344-01
A9	671-2378-00	B010100	B010532	CIRCUIT BD ASSY:CPU	80009	671-2378-00
A9	671-2378-01	B010533	B010963	CIRCUIT BD ASSY:CPU	80009	671-2378-01
A9	671-2378-02	B010964		CIRCUIT BD ASSY:CPU (CG5011 ONLY)	80009	671-2378-02
A9BT4041	146-0045-00	B010100	B010209	BATTERY,DRY:3.4V,1.75AH,AA CELL (CG5010 & OPTION 01 ONLY)	TK1320	15-51-03-410-000
A9BT4041	146-0045-00	B010100	B010532	BATTERY,DRY:3.4V,1.75AH,AA CELL (CG5011 & OPTION 01 ONLY)	TK1320	15-51-03-410-000
A9C1031	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A9C2021	281-0813-00			CAP,FXD,CER DI:0.047UF,20%,50V	04222	SA105E473MAA
A9C2023	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A9C2027	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A9C2031	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A9C3031	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A9C3033	281-0762-00			CAP,FXD,CER DI:27PF,20%,100V	04222	SA102A270MAA
A9C3034	281-0762-00			CAP,FXD,CER DI:27PF,20%,100V	04222	SA102A270MAA
A9C3064	285-1189-00			CAP,FXD,MTLZD:0.1 UF,5%,100 V	56699	PMT 3R .1J 100
A9C3071	281-0813-00			CAP,FXD,CER DI:0.047UF,20%,50V	04222	SA105E473MAA
A9C3073	290-0527-00			CAP,FXD,ELCTLT:15UF,20%,20V	31433	T355F156M020AS
A9C3076	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A9C3081	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A9C4011	281-0823-00			CAP,FXD,CER DI:470PF,10%,50V	04222	SA101A471KAA
A9C4021	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A9C4032	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A9C4062	290-0847-00			CAP,FXD,ELCTLT:47UF,+50-20%,10WVDC	0J9R5	CE02W1A470MD
A9C4063	281-0820-00			CAP,FXD,CER DI:680 PF,10%,50V	04222	SA101C681KAA
A9C4072	290-0536-00			CAP,FXD,ELCTLT:10UF,20%,25V TANTALUM	31433	T355E106M025AS
A9C4073	290-0536-00			CAP,FXD,ELCTLT:10UF,20%,25V TANTALUM	31433	T355E106M025AS
A9C4081	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A9C4084	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A9C4091	285-0808-00			CAP,FXD,PLASTIC:0.1UF,10%,50V	84411	TEK34-1049R5
A9C4092	290-0748-00			CAP,FXD,ELCTLT:10UF,+50-20%,25WVDC	1W344	SME25T10RM5X12FP
A9C5061	281-0773-00			CAP,FXD,CER DI:0.01UF,10%,100V	04222	SA101C103KAA
A9C5063	281-0775-00			CAP,FXD,CER DI:0.1UF,20%,50V	04222	SA105E104MAA
A9CR1021	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A9CR1022	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A9CR2063	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A9CR3011	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A9CR3021	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427

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A9CR3022	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A9CR3023	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A9CR3024	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A9CR3025	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A9CR3063	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A9CR3065	152-0141-02	B010100	B010209	DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF (CG5010 & OPTION 01 ONLY)	27014	FDH9427
A9CR3065	152-0141-02	B010100	B010532	DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF (CG5011 ONLY)	27014	FDH9427
A9CR3067	152-0075-00	B010100	B010209	SEMICOND DVC,DI:SW,GE,22V,80MW,DO-7	66891	G866
A9CR3067	152-0141-02	B010210		DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF (CG5010 & OPTION 01 ONLY)	27014	FDH9427
A9CR3067	152-0075-00	B010100	B010532	SEMICOND DVC,DI:SW,GE,22V,80MW,DO-7	66891	G866
A9CR3067	152-0141-02	B010533		DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF (CG5011 ONLY)	27014	FDH9427
A9CR4094	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A9CR5041	152-0141-02			DIODE,SIG:,ULTRA FAST;40V,150MA,4NS,2PF	27014	FDH9427
A9F3081	159-0171-00			FUSE,CARTRIDGE:3AG,0.1A,250V,MEDIUM	71400	AGC-1/10
A9F4083	159-0024-00			FUSE,CARTRIDGE:3AG,0.062A,250V,0.3SEC	71400	AGC 1/16
A9F4085	159-0015-00			FUSE,CARTRIDGE:3AG,3A,250V,0.65SEC	75915	312 003
A9J1031	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025 (QUANTITY OF 3)	22526	48283-036
A9J1032	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025 (QUANTITY OF 3)	22526	48283-036
A9J1053	131-0608-00			TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025 (QUANTITY OF 3)	22526	48283-036
A9J1111	131-2514-00			CONN,HDR::PCB,;MALE,RTANG,2 X 10,0.1 CTR	00779	86479-1
A9P1031	131-0993-00			BUS,CONDUCTOR:SHUNT/SHORTING,;FEMALE,STR,1	22526	65474-006
A9P1032	131-0993-00			BUS,CONDUCTOR:SHUNT/SHORTING,;FEMALE,STR,1	22526	65474-006
A9P1053	131-0993-00			BUS,CONDUCTOR:SHUNT/SHORTING,;FEMALE,STR,1	22526	65474-006
A901083	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A902041	151-1103-00			TRANSISTOR,SIG:DMOS,N-CH;ENH,30V,50MA,45	17856	SD210DE
A902061	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A902065	151-0424-00			TRANSISTOR:NPN,SI,TO-92	04713	MPS2369A
A902069	151-1103-00			TRANSISTOR,SIG:DMOS,N-CH;ENH,30V,50MA,45	17856	SD210DE
A903061	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A903063	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN;40V,200MA,300MHZ	04713	2N3904
A903066	151-0521-00			SCR:SI,MU-27	04713	C122B1
A905041	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP;40V,200MA,250MHZ	04713	2N3906
A9R1011	313-1100-00			RES,FXD,FILM:10 OHM,5%,0.2W	91637	CCF50-2-10R00J
A9R1012	313-1302-00			RES,FXD,FILM:3K OHM,5%,0.2W	91637	CCF50-2-30000J
A9R1013	313-1751-00			RES,FXD,FILM:750 OHM,5%,0.2W	91637	CCF50-2-750R0J
A9R1014	313-1122-00			RES,FXD,FILM:1.2K OHM,5%,0.2W	91637	CCF50-2-12000J
A9R1021	313-1153-00			RES,FXD,FILM:15K,5%,0.2W	91637	CCF50-2-15001J
A9R1023	307-0445-00			RES NTWK,FXD,FI:4.7K OHM,2%, (9)RES,10 PIN	11236	750-101-R4.7 K TUBE
A9R1041	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125WTC=200	91637	CSC10A-01-104G/J
A9R1042	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125WTC=200	91637	CSC10A-01-104G/J
A9R1051	313-1472-00			RES,FXD,FILM:4.7K OHM,5%,0.2W	91637	CCF50-2-47000J
A9R1052	313-1472-00			RES,FXD,FILM:4.7K OHM,5%,0.2W	91637	CCF50-2-47000J
A9R1082	313-1472-00			RES,FXD,FILM:4.7K OHM,5%,0.2W	91637	CCF50-2-47000J
A9R1091	313-1472-00			RES,FXD,FILM:4.7K OHM,5%,0.2W	91637	CCF50-2-47000J
A9R2011	313-1104-00			RES,FXD,FILM:100K OHM,5%,0.2W	91637	CCF50-2-10002J
A9R2012	313-1102-00			RES,FXD,FILM:1K OHM,5%,0.2W	91637	CCF50-2-10000J
A9R2022	313-1513-00			RES,FXD,CMPSN:51K OHM,5%,0.2W	91637	CCF50-2-51001J

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A9R2024	313-1822-00			RES,FXD,FILM:8.2K,OHM,5%,0.2W	91637	CCF50-2-82000J
A9R2025	313-1822-00			RES,FXD,FILM:8.2K,OHM,5%,0.2W	91637	CCF50-2-82000J
A9R2026	313-1822-00			RES,FXD,FILM:8.2K,OHM,5%,0.2W	91637	CCF50-2-82000J
A9R2042	313-1681-00			RES,FXD,FILM:680 OHM,5%,0.2W	91637	CCF50-2-680R0J
A9R2052	307-0586-00			RES NTWK,FXD,FI:39K OHM,2%,1.25W	91637	CSC10A01393G
A9R2062	313-1102-00			RES,FXD,FILM:1K OHM,5%,0.2W	91637	CCF50-2-10000J
A9R2067	313-1243-00			RES,FXD,FILM:24K OHM,5%,0.2W	91637	R20J24K
A9R2068	313-1822-00			RES,FXD,FILM:8.2K,OHM,5%,0.2W	91637	CCF50-2-82000J
A9R3027	313-1273-00			RES,FXD,FILM:27K OHM,5%,0.2W	91637	CCF50-2-27001J
A9R3028	313-1273-00			RES,FXD,FILM:27K OHM,5%,0.2W	91637	CCF50-2-27001J
A9R3029	313-1273-00			RES,FXD,FILM:27K OHM,5%,0.2W	91637	CCF50-2-27001J
A9R3051	313-1112-00	B010100	B010209	RES,FXD,FILM:1.1K,5%,0.2W (CG5010 & OPTION 01 ONLY)	91637	CCF501G11000J
A9R3051	313-1112-00	B010100	B010532	RES,FXD,FILM:1.1K,5%,0.2W (CG5011 ONLY)	91637	CCF501G11000J
A9R3067	313-1511-00			RES,FXD,FILM:510 OHM,5%,0.2W	91637	CCF50-2-510R0J
A9R3072	313-1104-00			RES,FXD,FILM:100K OHM,5%,0.2W	91637	CCF50-2-10002J
A9R3074	313-1912-00			RES,FXD,FILM:9.1K OHM,5%,0.2W	91637	CCF501G9100R0F
A9R3075	303-0101-00			RES,FXD,CMPSN:100 OHM,5%,1W	91637	CMF65-42 100 OHMS 5
A9R4012	313-1103-00			RES,FXD,FILM:10K OHM,5%,0.2W	91637	CCF50-2-10001J
A9R4042	307-0445-00			RES NTWK,FXD,FI:4.7K OHM,2%, (9)RES,10 PIN	11236	750-101-R4.7 K TUBE
A9R4064	308-0742-00			RES,FXD,WW:0.24 OHM,5%,2W	75042	BWH-R2400J
A9R4074	322-3223-00			RES,FXD,FILM:2.05K OHM,1%,0.2W,TC=T0	91637	CCF501G20500F
A9R4075	322-3133-00			RES,FXD,FILM:237 OHM,1%,0.2W,TC=T0	91637	CCF50-2F237R0F
A9R4087	322-3223-00			RES,FXD,FILM:2.05K OHM,1%,0.2W,TC=T0	91637	CCF501G20500F
A9R4088	322-3133-00			RES,FXD,FILM:237 OHM,1%,0.2W,TC=T0	91637	CCF50-2F237R0F
A9R4093	313-1360-00			RES,FXD,FILM:36 OHM,5%,0.2W	91637	CCF501G36R00J
A9R5051	313-1162-00			RES,FXD,FILM:1.6K OHM,5%,0.2W	91637	CCF50-2-16000J
A9R5052	321-0193-03			RES,FXD,FILM:1K OHM,0.25%,0.125W,TC=T2	19701	5033RC1K000C
A9R5053	313-1102-00			RES,FXD,FILM:1K OHM,5%,0.2W	91637	CCF50-2-10000J
A9R5054	321-0193-03			RES,FXD,FILM:1K OHM,0.25%,0.125W,TC=T2	19701	5033RC1K000C
A9R5055	313-1751-00			RES,FXD,FILM:750 OHM,5%,0.2W	91637	CCF50-2-750R0J
A9R5061	313-1101-00			RES,FXD,FILM:100 OHM,5%,0.2W	91637	CCF50-2-100R0J
A9S1061	260-1641-00			SWITCH,SLIDE:DPDT,0.5A,125VAC	04426	8524923-021-114
A9TP1062	214-0579-00			TERM,TEST POINT:BRS CD PL	0J260	ORDER BY DESCRIPTION
A9TP1071	214-0579-00			TERM,TEST POINT:BRS CD PL	0J260	ORDER BY DESCRIPTION
A9TP2066	214-0579-00			TERM,TEST POINT:BRS CD PL	0J260	ORDER BY DESCRIPTION
A9TP2071	214-0579-00			TERM,TEST POINT:BRS CD PL	0J260	ORDER BY DESCRIPTION
A9U1021	156-0495-00			IC,LINEAR:BIPOLAR,OP-AMP;QUAD,SINGLE SUPPLY	01295	LM324N
A9U1032	160-6849-00	B010100	B010209	MICROCKT,DGTL:CMOS,32768 X 8 PROM W/3 STATE	80009	160-6849-00
A9U1032	160-6849-01	B010210		IC,DIGITAL:CMOS,PROM;32768 X 8,PRGM (CG5010 & OPTION 01 ONLY)	80009	160-6849-01
A9U1032	160-6850-00	B010100	B010329	MICROCKT,DGTL:CMOS,32768 X 8 PROM W/3 STATE	80009	160-6850-00
A9U1032	160-6850-01	B010330	B010963	IC,DIGITAL:CMOS,PROM;32768 X 8,PRGM	80009	160-6850-01
A9U1032	160-6850-02	B010964		IC,DIGITAL:CMOS,PROM;32768 X 8,PRGM (CG5011 ONLY)	80009	160-6850-02
A9U1043	156-1706-00	B010100	B010209	IC,MEMORY:CMOS,SRAM;2K X 8,250NS,1UA	80009	156-1706-00
A9U1043	156-2671-00	B010210		IC,MEMORY:CMOS,NVRAM;2K X 8,200NS,SRAM (CG5010 & OPTION 01 ONLY)	0B0A9	DS1220Y
A9U1043	156-1706-00	B010100	B010532	IC,MEMORY:CMOS,SRAM;2K X 8,250NS,1UA	80009	156-1706-00
A9U1043	156-2671-00	B010533		IC,MEMORY:CMOS,NVRAM;2K X 8,200NS,SRAM (CG5011 ONLY)	0B0A9	DS1220Y
A9U1063	156-0382-00			IC,DIGITAL:LSTTL,GATE;QUAD 2-INPUT NAND	01295	SN74LS00N
A9U1072	156-1246-00			IC,PROCESSOR:NMOS,PERIPHERAL;GENERAL	04713	MC68488S/P
A9U1081	156-1414-00			IC,DIGITAL:LSTTL,TRANSCEIVER;OCTAL IEEE-488	01295	SN75160B (N OR J)
A9U2028	156-0914-00			IC,DIGITAL:LSTTL,BUFFER/DRIVER;OCTAL INV	01295	SN74LS240N

Component No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Part Name & Description	Mfr Code	Mfr Part Number
A9U2051	156-1111-00			IC,DIGITAL:LSTTL,TRANSCEIVER;OCTAL NONINV	01295	SN74LS245N
A9U2064	156-1707-00			IC,DIGITAL:FTTL,GATE;QUAD 2-INPUT NAND	04713	MC74F00 (N OR J)
A9U2065	156-0469-00			IC,DIGITAL:LSTTL,DEMUX/DECODER;3-TO-8	01295	SN74LS138 (N OR J)
A9U2081	156-1415-00			IC,DIGITAL:LSTTL,TRANSCEIVER;OCTAL IEEE-488	01295	SN75161BN
A9U3012	156-0786-00			IC,DIGITAL:CMOS,GATES;QUAD 2-INPUT XOR	04713	MC14070BCP
A9U3026	156-1205-00			IC,PROCESSOR:NMOS,PERIPHERAL;PERIPHERAL	04713	MC68B21P OR L
A9U3041	156-1342-01			IC,PROCESSOR:NMOS,MICROPROCESSOR;8-BIT	04713	MC68B02P
A9U3062	156-1126-00			IC,LINEAR:BIPOLAR,COMPARATOR;OPEN COLLECTOR	01295	LM311P
A9U4022	156-1205-00			IC,PROCESSOR:NMOS,PERIPHERAL;PERIPHERAL	04713	MC68B21P OR L
A9U4065	156-0071-00			IC,LINEAR:BIPOLAR,VOLTAGE REGULATOR	27014	LM723CN
A9U4071	156-1173-00			IC,LINEAR:BIPOLAR,VOLTAGE REFERENCE	04713	MC1403U
A9U4074	156-1161-00			IC,LINEAR:BIPOLAR,VOLTAGE REGULATOR	27014	LM317T
A9U4086	156-1451-00			IC,LINEAR:BIPOLAR,VOLTAGE REGULATOR	27014	LM337T
A9VR5052	152-0175-00			DIODE,ZENER:,;5.6V,5%,0.4W;1N752A,DO-7	04713	SZG35008 (1N752ARL)
A9W2091	307-1137-00			RES NTWK,FXD,FI:8,0.005 OHM,+150-50%,0.125W (NOT P/O A9)	00779	435704-8
A9W3091	307-1151-00			RES NTWK,DUMMY:10,5 MILLIOHM,NOMINAL (NOT P/O A9)	00779	1-435704-0
A9Y3032	158-0256-00			XTAL UNIT,QTZ:4.000MHZ 0.0025%,ANTIRESONANT	50140	150-6070

CHASSIS PARTS

C520	283-0187-00			CAP,FXD,CER DI:0.047UF,10%,400V	04222	SR308C473KAA
C541	281-0697-00			CAP,FXD,CER DI:5000PF,+100-0%,100V	12294	1250-054
C542	281-0697-00			CAP,FXD,CER DI:5000PF,+100-0%,100V	12294	1250-054
C551	281-0697-00			CAP,FXD,CER DI:5000PF,+100-0%,100V	12294	1250-054
C552	281-0697-00			CAP,FXD,CER DI:5000PF,+100-0%,100V	12294	1250-054
C561	281-0824-00			CAP,FXD,CER DI:100PF,20%,1K HZ	33095	54-743-001-101M
C562	281-0824-00			CAP,FXD,CER DI:100PF,20%,1K HZ	33095	54-743-001-101M
C567	281-0824-00			CAP,FXD,CER DI:100PF,20%,1K HZ	33095	54-743-001-101M
C568	281-0824-00			CAP,FXD,CER DI:100PF,20%,1K HZ	33095	54-743-001-101M
C571	281-0824-00			CAP,FXD,CER DI:100PF,20%,1K HZ	33095	54-743-001-101M
C572	281-0824-00			CAP,FXD,CER DI:100PF,20%,1K HZ	33095	54-743-001-101M
C573	281-0824-00			CAP,FXD,CER DI:100PF,20%,1K HZ	33095	54-743-001-101M
C574	281-0824-00			CAP,FXD,CER DI:100PF,20%,1K HZ	33095	54-743-001-101M
C575	281-0824-00			CAP,FXD,CER DI:100PF,20%,1K HZ	33095	54-743-001-101M
J525	119-0238-00			COIL,CAL:	TK1943	ORDER BY DESCRIPTION
J530	131-1471-00			CONN,CIRC:SLDR CUP,;3 MALE,3 FEMALE,6 POS	TK1312	ERA.1S.306.CNL
Q501	151-0497-00			TRANSISTOR:NPN,SI,TO-220	04713	TIP47
W500	175-1402-00			CABLE ASSY,RF:50 OHM COAX,15.375 L	80009	175-1402-00
W510	175-3096-00			LEAD ASSY,ELEC:2,26 AWG,1.5 L	TK1997	ORDER BY DESCRIPTION

DIAGRAMS AND CIRCUIT BOARD ILLUSTRATIONS

Symbols

Graphic symbols and class designation letters are based on ANSI Standard Y32.2-1975.

Logic symbology is based on ANSI Y32.14-1973 in terms of positive logic. Logic symbols depict the logic function performed and may differ from the manufacturer's data.

The overline on a signal name indicates that the signal performs its intended function when it is in the low state.

Abbreviations are based on ANSI Y1.1-1972.

Other ANSI standards that are used in the preparation of diagrams by Tektronix, Inc. are:

Y14.15, 1966	Drafting Practices.
Y14.2, 1973	Line Conventions and Lettering.
Y10.5, 1968	Letter Symbols for Quantities Used in Electrical Science and Electrical Engineering.

American National Standard Institute
1430 Broadway
New York, New York 10018

Component Values

Electrical components shown on the diagrams are in the following units unless noted otherwise:

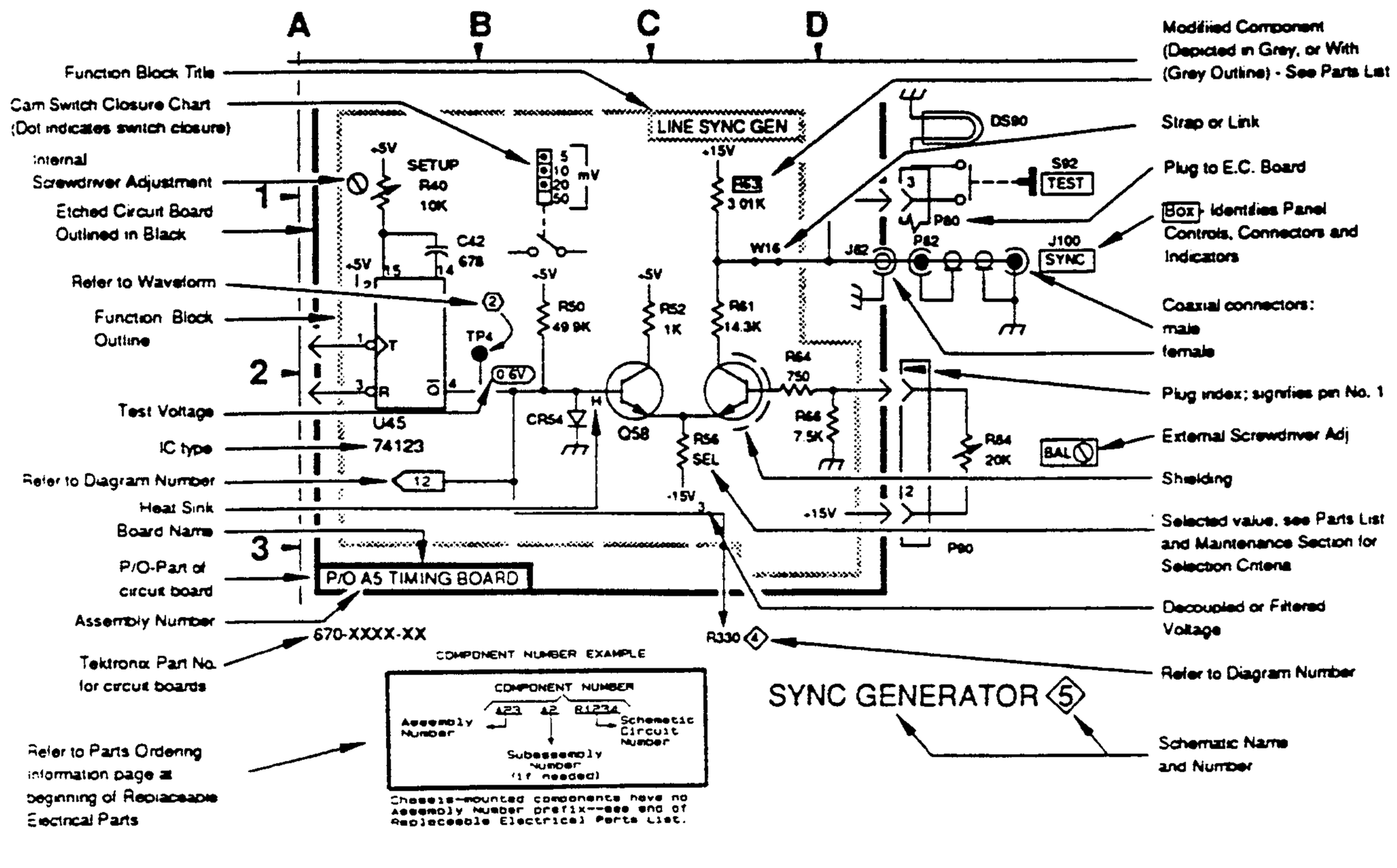
Capacitors = Values one or greater are in picofarads (pF). Values less than one are in microfarads (μF).
Resistors = Ohms (Ω).

The information and special symbols below may appear in this manual.

Assembly Numbers and Grid Coordinates

Each assembly in the instrument is assigned an assembly number (e.g., A20). The assembly number appears on the circuit board outline on the diagram, in the title for the circuit board component location illustration, and in the lookup table for the schematic diagram and corresponding component locator illustration. The Replaceable Electrical Parts list is arranged by assemblies in numerical sequence; the components are listed by component number *(see following illustration for constructing a component number).

The schematic diagram and circuit board component location illustration have grids. A lookup table with the grid coordinates is provided for ease of locating the component. Only the components illustrated on the facing diagram are listed in the lookup table. When more than one schematic diagram is used to illustrate the circuitry on a circuit board, the circuit board illustration may only appear opposite the first diagram on which it was illustrated; the lookup table will list the diagram number of other diagrams that the circuitry of the circuit board appears on.



CG 5010/CG 5011 SCHEMATICS

FRONT PANEL KEY SWITCHES 1A
FRONT PANEL DISPLAYS 1B
DISPLAY MULTIPLEXER 2
MAIN INTERCONNECT 3
TIME INTERFACE (REFERENCE SIDE) 4
TIME INTERFACE (SLEWING SIDE) 5
OFFSET LOOP & OFFSET VCO 6
SLEWING CONTROL 7
TRIGGER COUNTER 8
SLEWING COUNTER 9
STEERING LOOP (PARTIAL) 10
STEERING LOOP (PARTIAL) 11
REFERENCE LOOP & MAIN VCO 12
ADVANCED TIMING BOARD: CG 5011 12A
FAST MARKERS & MARKER AMPLIFIER 13
COUNTDOWN CIRCUIT 14
SLOW MARKER/TRIGGER DIVIDER 15
MARKER DATA REGISTERS AND CHOP AMPLIFIER 16
AUTO REFERENCE SELECT & 12V REGULATOR 17
SUPPLY REGULATORS 18
FLOATING SUPPLY 19A
HV & LV POWER SUPPLIES 19B
PROGRAMMABLE REF. & DATA ISOLATORS 20
PRECISION DIVIDER & V - 1 CONVERTER 21
SAC SWITCHING & DATA REFERENCE REGISTER 22A
LO SAC, HIGH SAC 22B
LOW EDGE GENERATOR & CHOP ISOLATOR 23
MID EDGE GENERATOR & PULSE HEAD DRIVE 24
OUTPUT SWITCHING & ATTENUATORS 25
POWER ON TEXT & HEAT 26
CG HI EDGE GEN. & EDGE OVERLOAD SENS 27
MICROPROCESSOR AND SYS CLOCK 28
MEMORY AND POWER ON/OFF DETECT 29
PIAS AND HEAD SENSE 30
CPU POWER SUPPLY 31

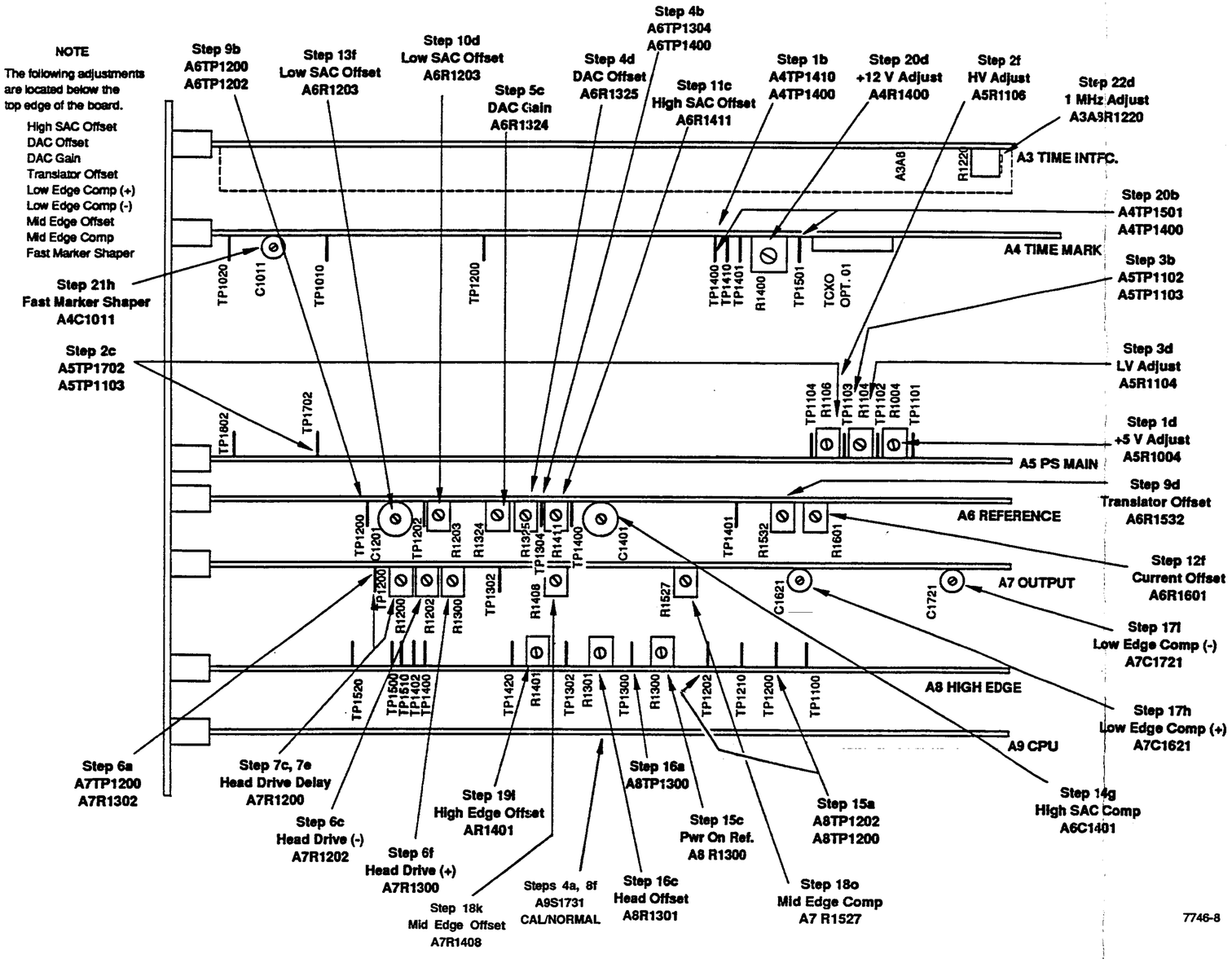


Fig. 9-1

ADJUSTMENTS AND TEST POINT LOCATIONS

RELAY STATE TABLE

AMPLITUDE MODE: VOLTAGE, CURRENT, EDGE — TIMING MODE: MARKERS FAST EDGE, SLEWED EDGE (CG 5010) — SELF TEST ROUTINE: FAST TIME MKS (CG 5011)

| Relay | Schematic | OUTPUT OFF | 40 µV ≤ V_p < 1mV | 1 mV ≤ V_p < 100 mV | 100 mV ≤ V_p ≤ 10 V | 10 V < V_p ≤ 200 V | CURRENT LOOP ON | OUTPUT ON | V_p = 20 mV | 20 mV < V_p ≤ 50 mV | 50 mV < V_p ≤ .1V | .1V < V_p ≤ .2 V | .2 < V_p ≤ .5V | .5 < V_p ≤ 1V | 1 < V_p < 20 V | 20 < V | OUTPUT ON | OUTPUT ON | OUTPUT ON | Error Message Number 51 | 52 | 53 | 54 | 55 | 56 | 57 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 71 | 72 | 73 | OUTPUT ON |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A6K1101 | 22 | | | | | ● | | | | | | | | | | | | | | | | ● | ● | | | | | | | | | | | ● | |
| A6K1102 | 22 | | | | | | ● | ● | | | | | | | | | | | | | | | | ● | ● | | | | | | | | | | |
| A6K1111 | 22 | | ● | ● | ● | | | | | | | | | | | | | | | ● | ● | ● | | | | | | | | | | | ● | ● | | |
| A7K1225 | 25 | | | | | | ● | | | | | | | | | | | | | ● | | ● | | | ● | ● | ● | ● | ● | ● | | | | ● | | |
| A8K1230 | 26 | | | | | | | | | | | | | | | | ● | | | | | | | | | | | | | | | | | | | |
| A7K1300 | 26 | ● | ● | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A7K1312 | 25 | | | ● | ● | ● | | ● | | | | | | | | | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | | | |
| A7K1314 | 25 | ● | ● | ● | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A7K1323 | 25 | | | | ● | ● | | ● | | | | | | | | | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | | | |
| A7K1431 | 25 | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | B | B | B | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | B |
| A7K1432 | 25 | B | B | B | B | B | B | B | B | B | B | B | B | B | B | B | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A |
| A7K1433 | 25 | B | B | B | B | B | A | B | A | A | A | A | A | A | A | A | B | B | B | A | A | A | A | A | A | A | B | B | B | B | B | B | B | A | A | B |
| A7K1434 | 25 | A | A | A | A | A | A | A | A | A | A | A | A | A | B | A | B | A | A | A | A | A | A | A | A | A | A | A | A | A | B | B | A | A | A | B |
| A8K1530 | 26 | | | | | | | | | | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| A7K1532 | 25 | | | | | | | | A | B | B | A | B | A | | | | | | | | | | | | A | A | A | A | A | A | A | A | | | | |
| A7K1534 | 25 | | | | | | | | B | A | A | B | A | B | | | | | | | | | | | | B | B | B | B | B | B | B | B | | | | |
| A7K1535 | 25 | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | B | A | B | B | A | A | A | A | A | A | A | A | A | A | B | B | A | A | A | A |
| A7K1537 | 25 | A | A | A | A | A | B | A | B | B | B | B | B | B | A | A | A | A | A | A | A | A | A | A | A | A | B | B | B | B | A | A | A | A | A | B |
| A7K1632 | 25 | | | | | | | | B | A | B | B | A | A | | | | | | | | | | | | A | A | A | A | A | A | A | A | | | | |
| A7K1634 | 25 | | | | | | | | A | B | A | A | B | B | | | | | | | | | | | | B | B | B | B | B | B | B | B | | | | |
| A7K1636 | 25 | | | | | | | | B | B | A | A | A | A | | | | | | | | | | | | A | A | A | A | A | A | A | A | | | | |
| A7K1638 | 25 | | | | | | | | A | A | B | B | B | B | | | | | | | | | | | | B | B | B | B | B | B | B | B | | | | |
| A7K1737 | 25 | | | | | | | | A for neg edge B for pos edge | | | | | | | | A | A | A | A | A | A | A | A | A | A | B | B | A | A | A | A | A | A | A | A |
| A7K1739 | 25 | | | | | | | | A for pos edge B for neg edge | | | | | | | | A | A | A | A | A | A | A | A | B | B | A | A | A | A | A | A | A | A | A | A |

▒ Indicates independent of setting; contact remains closed for last used EDGE mode setting.

● means contact closed.

A or B indicates which latching relay contact is closed.

7746-19

Fig. 9-2

RELAY STATE TABLE

AMPLITUDE MODE CHECK

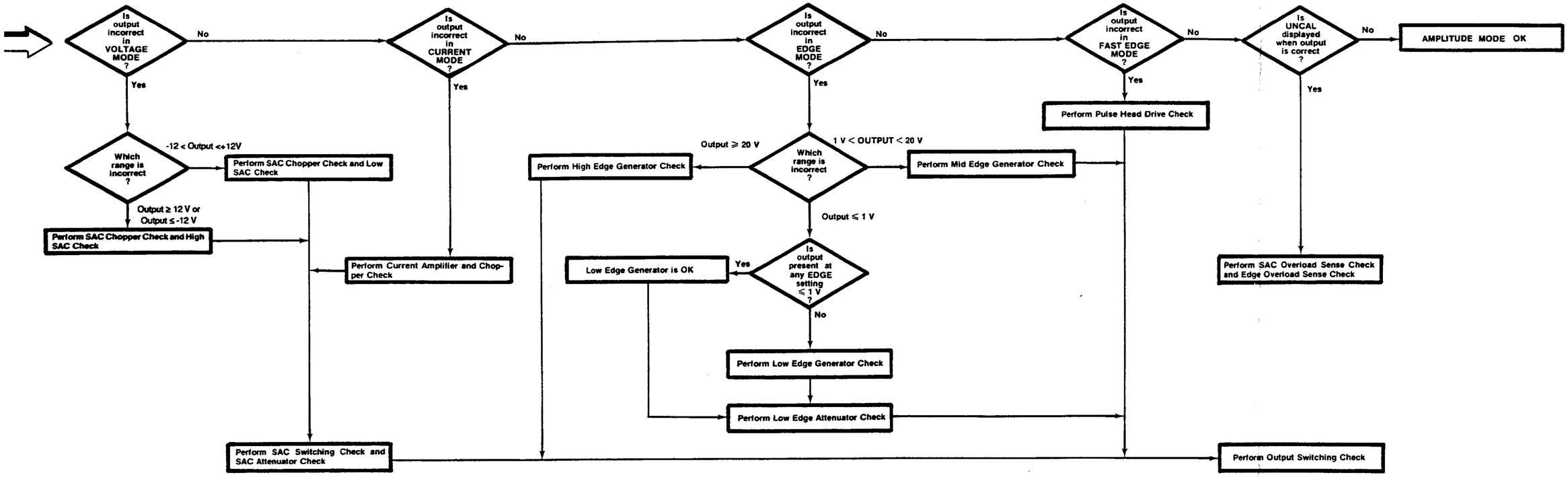


Fig. 9-3

(2815-25)7746-9

AMPLITUDE MODE CHECK TROUBLESHOOTING TREE 1

POWER SUPPLY CHECK ◈18◈ A5 ◈19◈ A5 A1 A5 A2

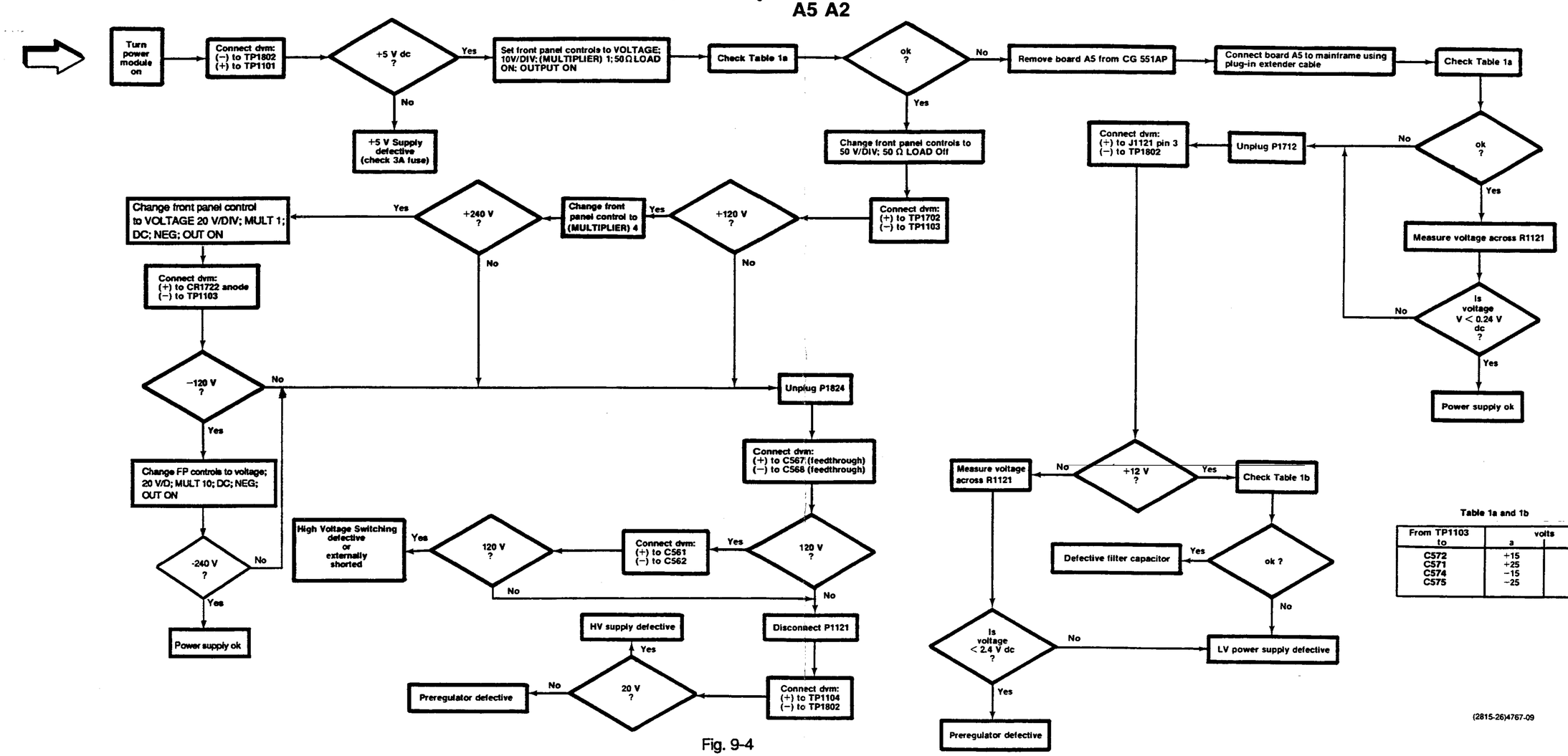


Fig. 9-4

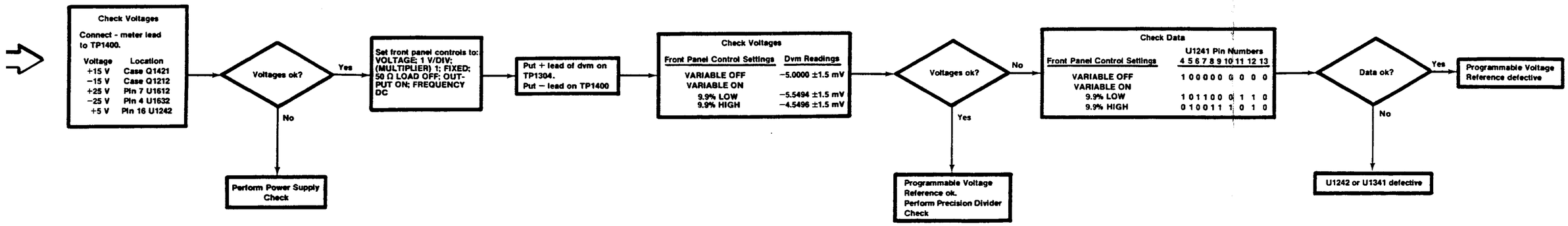
Table 1a and 1b

From TP1103 to	volts a	volts b
C572	+15	18
C571	+25	36
C574	−15	−18
C575	−25	−36

(2815-26)4767-09

POWER SUPPLY CHECK TROUBLESHOOTING TREE 2

PROGRAMMABLE VOLTAGE REFERENCE CHECK ◇20◇ A6

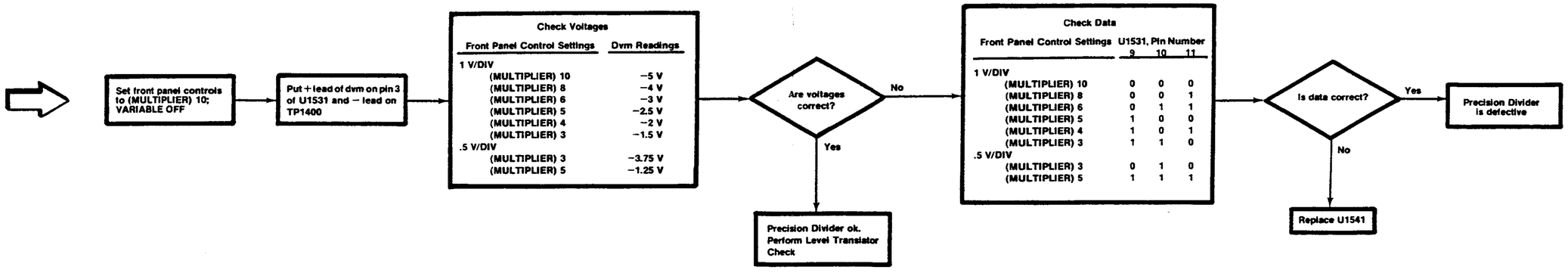


(2815-27)4767-10

Fig. 9-5

PROGRAMMABLE VOLTAGE REF CHECK TROUBLESHOOTING TREE 3A

PRECISION DIVIDER CHECK (21) A6

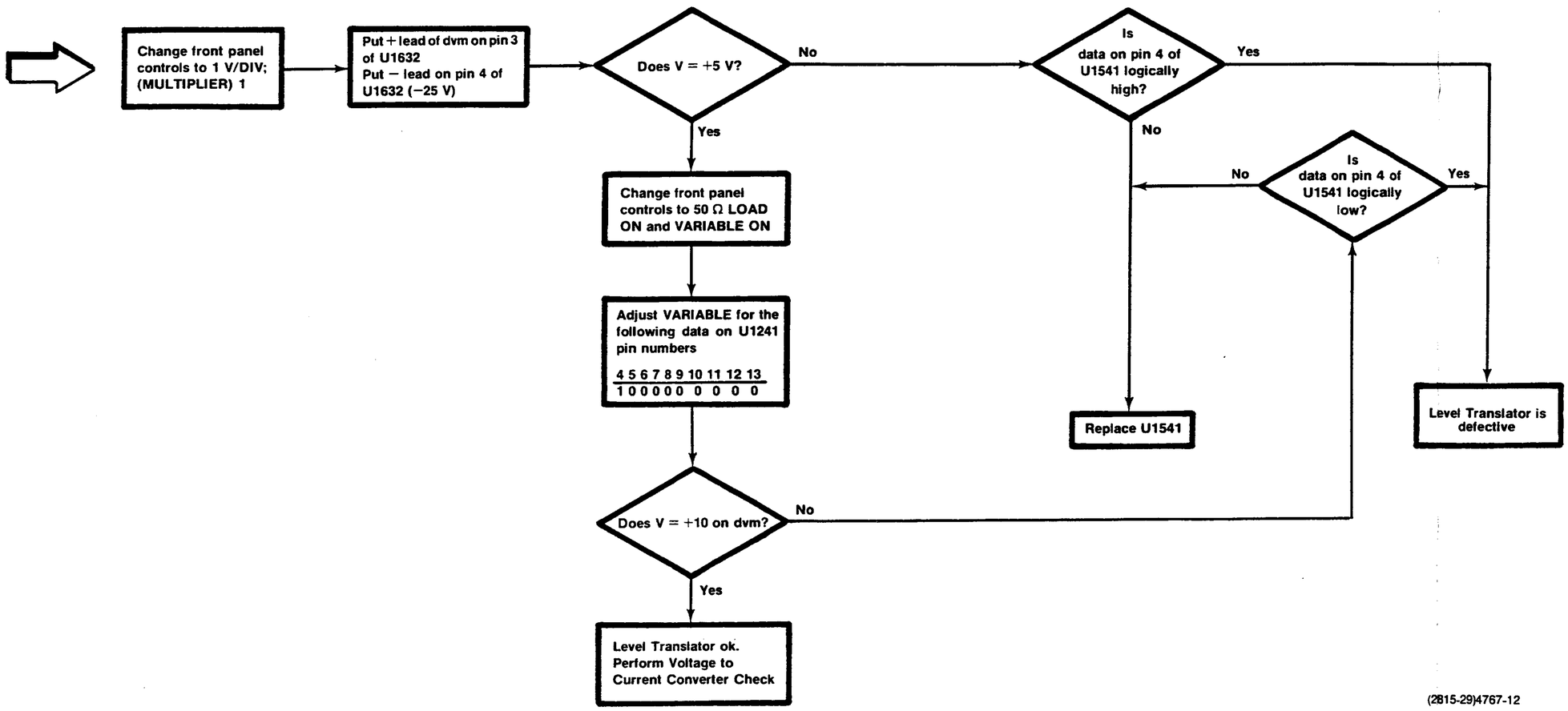


(2815-28)4767-11

Fig. 9-6

PRECISION DIVIDER CHECK TROUBLESHOOTING TREE 3B

LEVEL TRANSLATOR CHECK 21 A6



(2815-29)4767-12

Fig. 9-7

LEVEL TRANSLATOR CHECK TROUBLESHOOTING TREE 3C

VOLTAGE TO CURRENT CONVERTER CHECK 21 A6

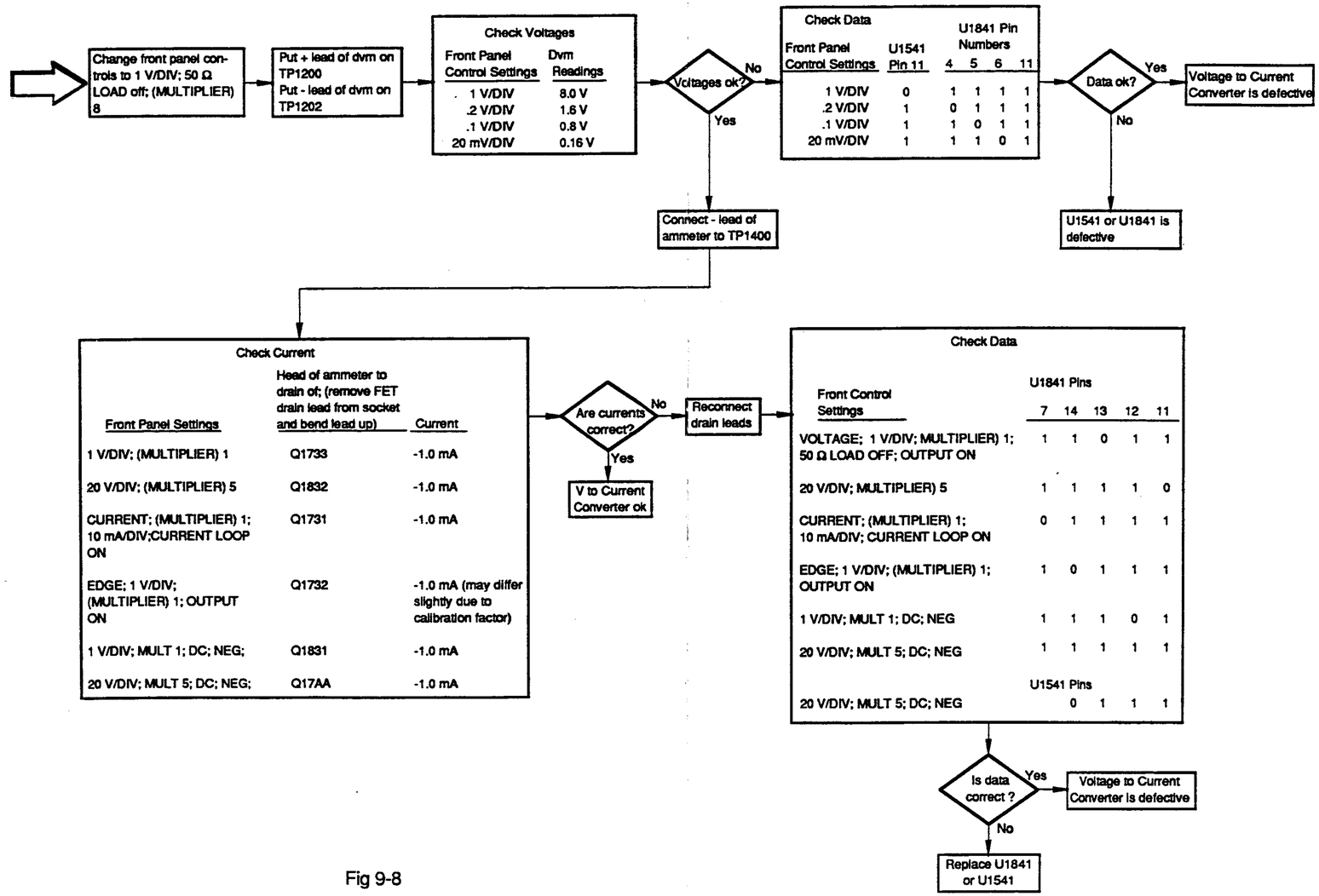


Fig 9-8

7746-11

VOLTAGE TO CURRENT CONVERTER CHECK TROUBLESHOOTING TREE 3D

SAC CHOPPER CHECK 21 A6

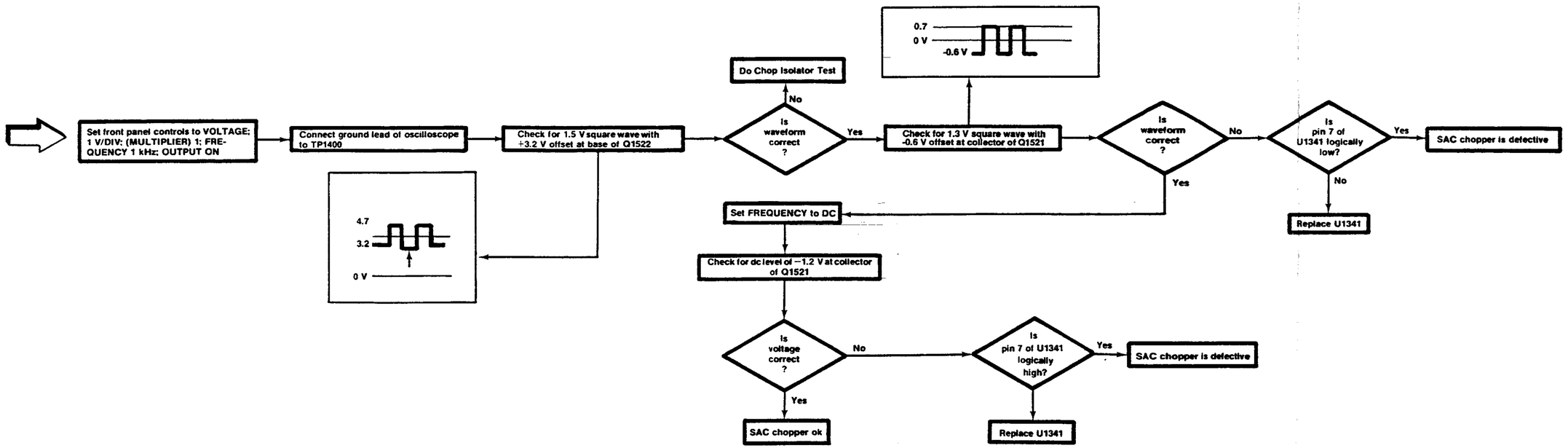


Fig. 9-9

(2815-31)7746-12

SAC CHOPPER CHECK TROUBLESHOOTING TREE 4

LOW SAC CHECK 22 A6

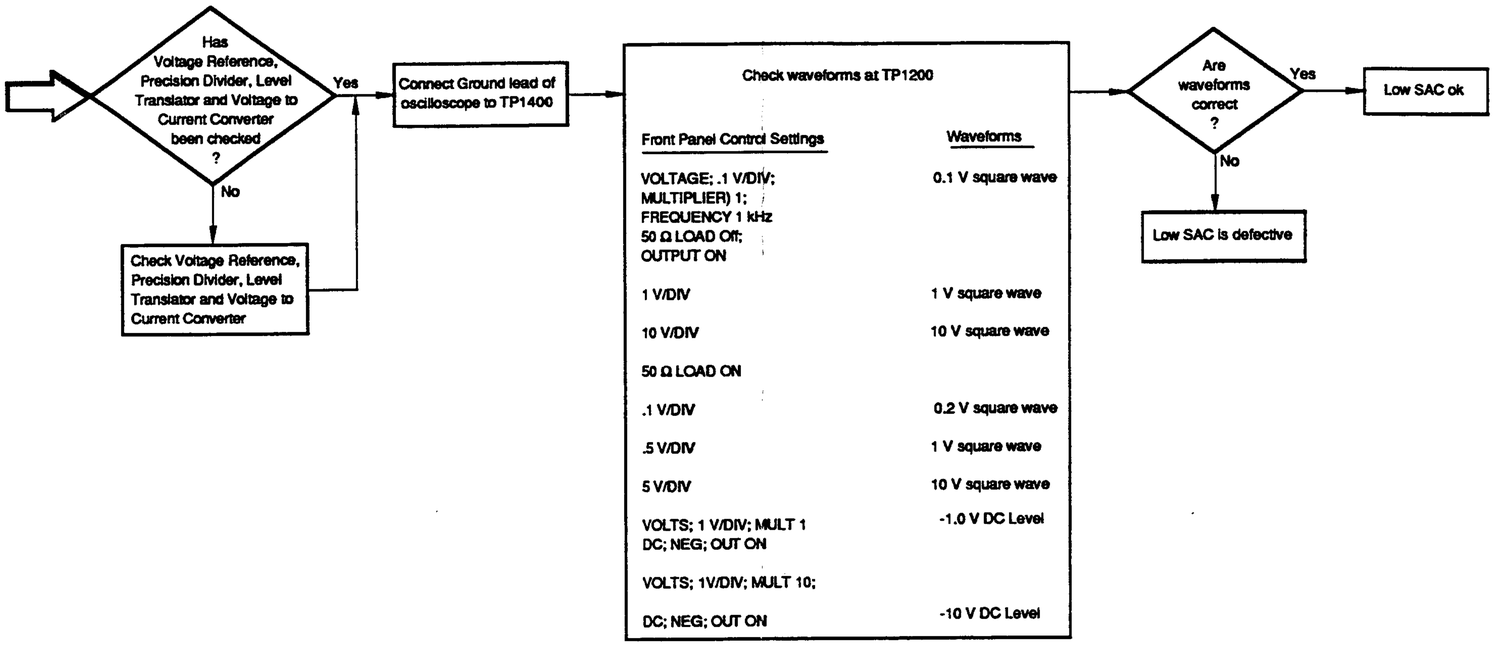


Fig 9-10

LOW SAC CHECK TROUBLESHOOTING CHART 5

7746-13

LOW SAC CHECK
TROUBLESHOOTING CHART 5

HIGH SAC CHECK 22 A6

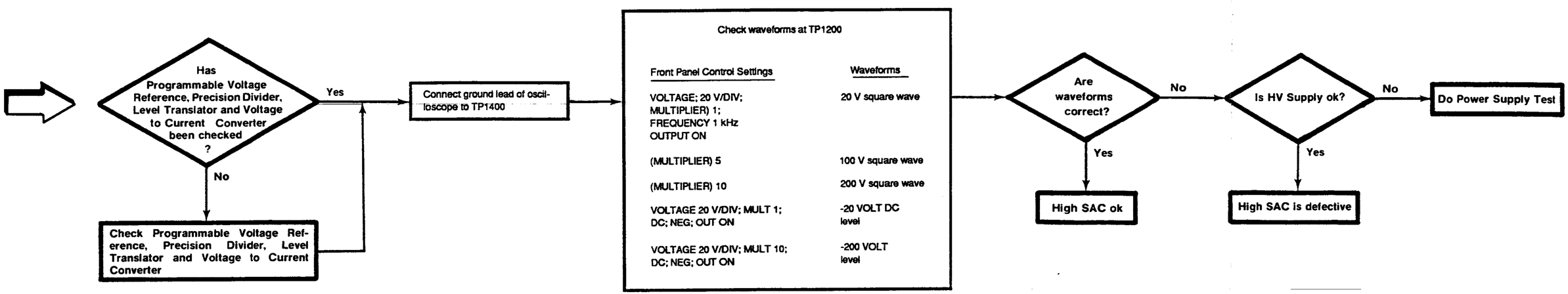


Fig. 9-11

(2815-33)7748-14

HIGH SAC CHECK TROUBLESHOOTING TREE 6

CURRENT AMPLIFIER AND CHOPPER CHECK (22) A6

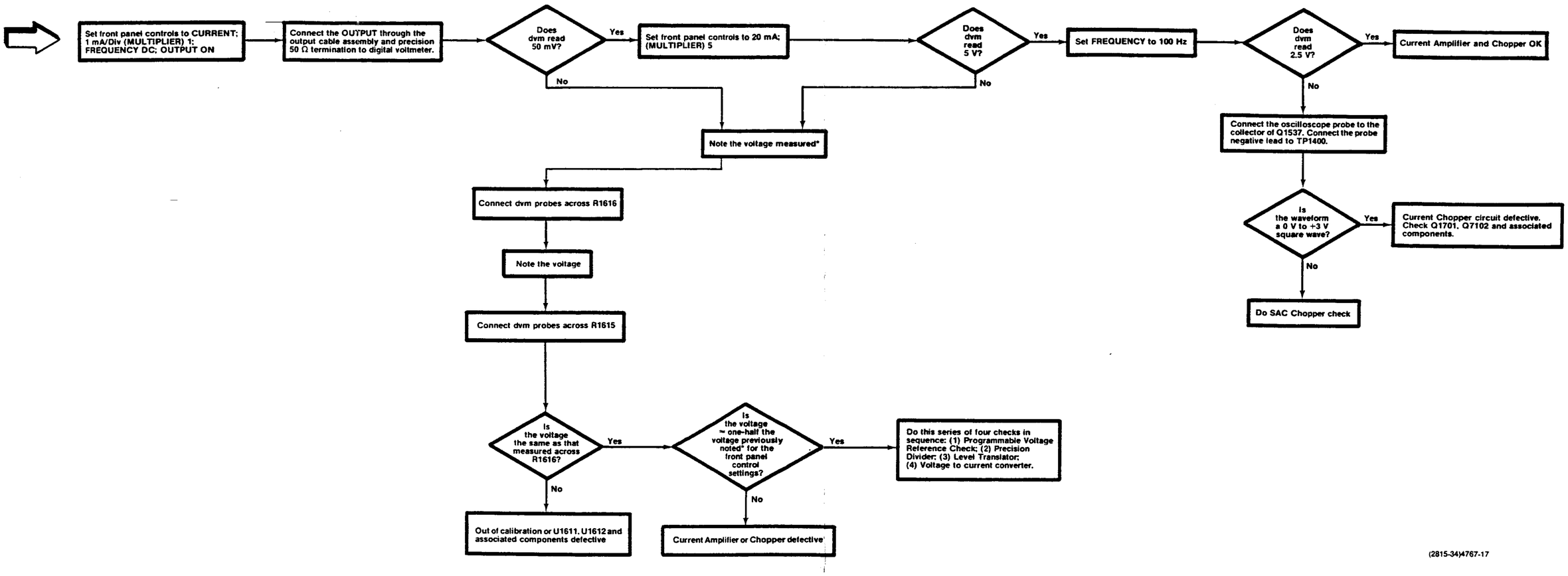


Fig. 9-12

CURRENT AMPL AND CHOPPER CHECK TROUBLESHOOTING TREE 7

SAC SWITCHING CHECK 22 A6

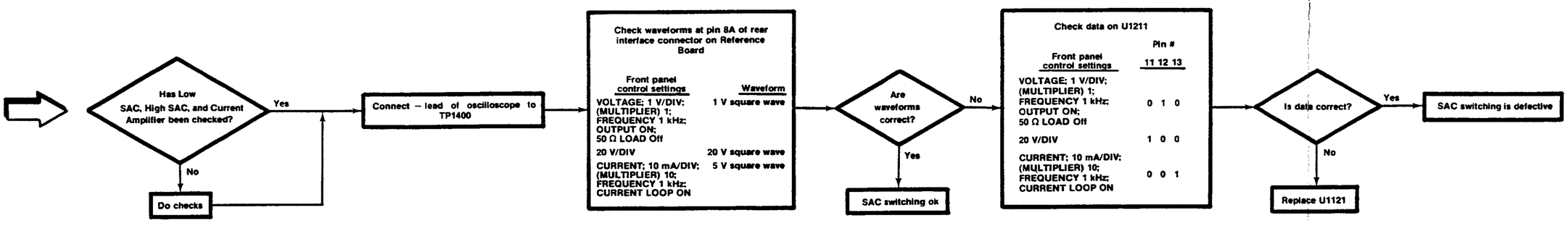


Fig. 9-13

(2815-35)4767-18

SAC SWITCHING CHECK
TROUBLESHOOTING TREE 8

SAC OVERLOAD SENSE CHECK 22 A6

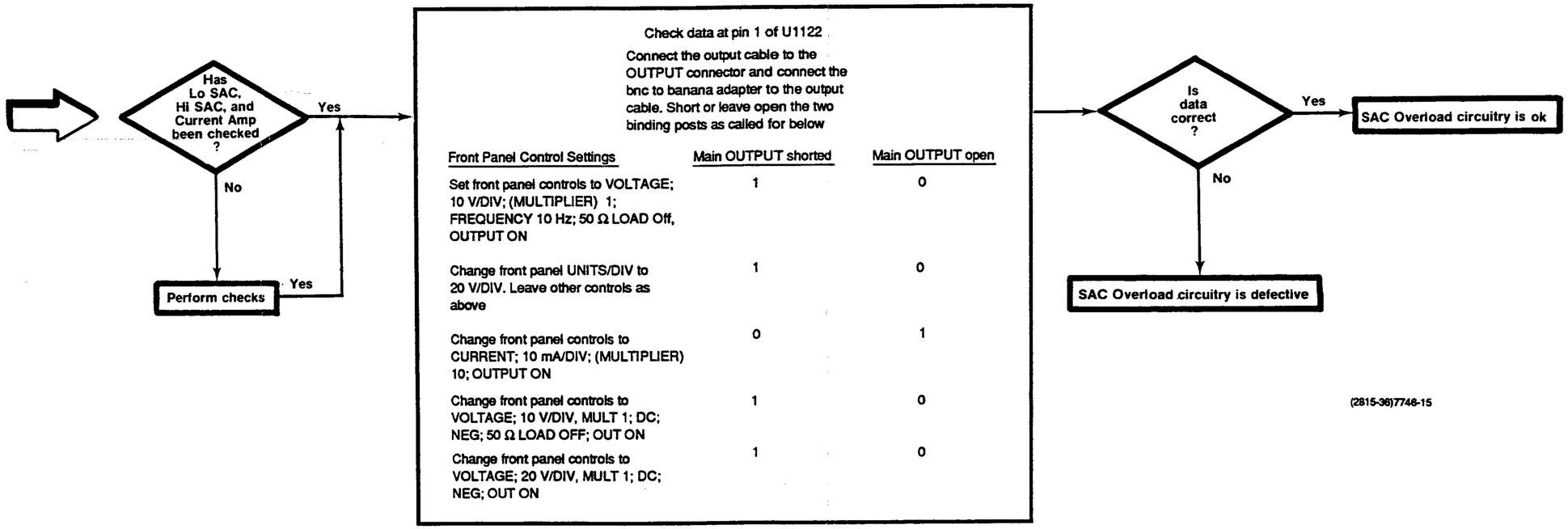


Fig. 9-14

SAC OVERLOAD SENSE CHECK TROUBLESHOOTING TREE 9

CHOP ISOLATOR CHECK 23 A7

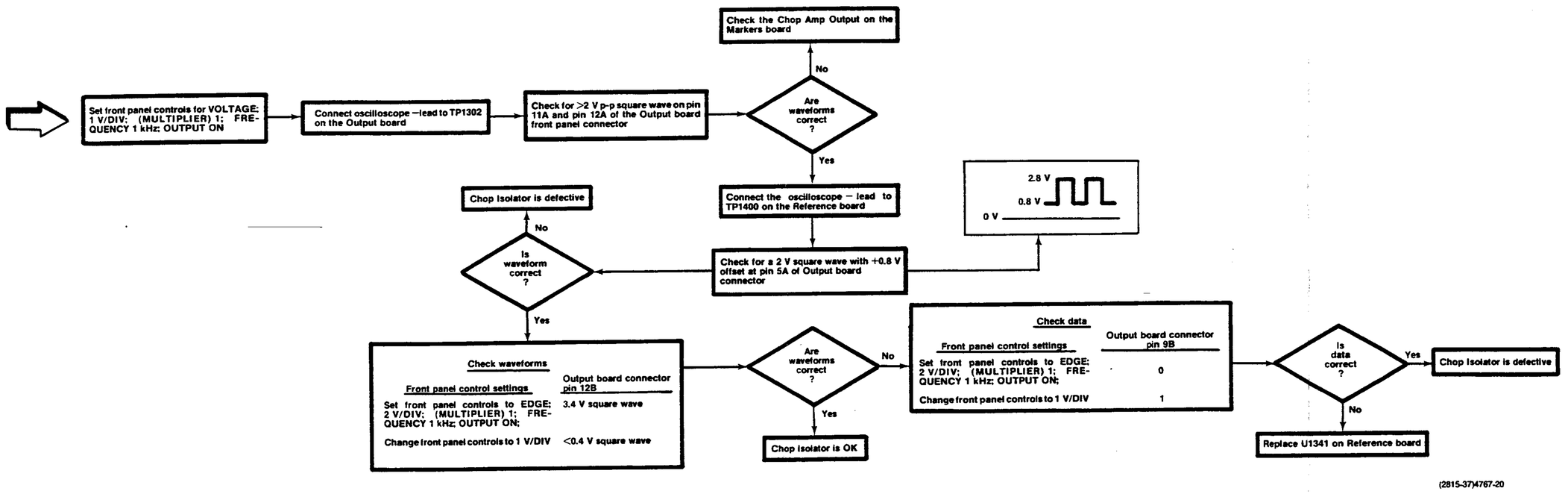


Fig. 9-15

CHOP ISOLATOR CHECK TROUBLESHOOTING TREE 10

LOW EDGE GENERATOR CHECK 23 A7

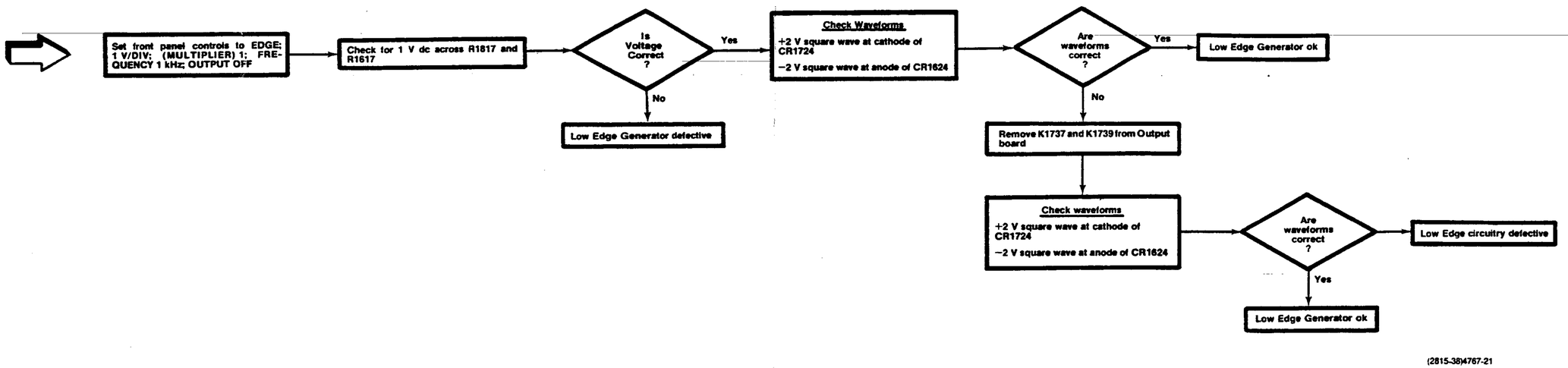
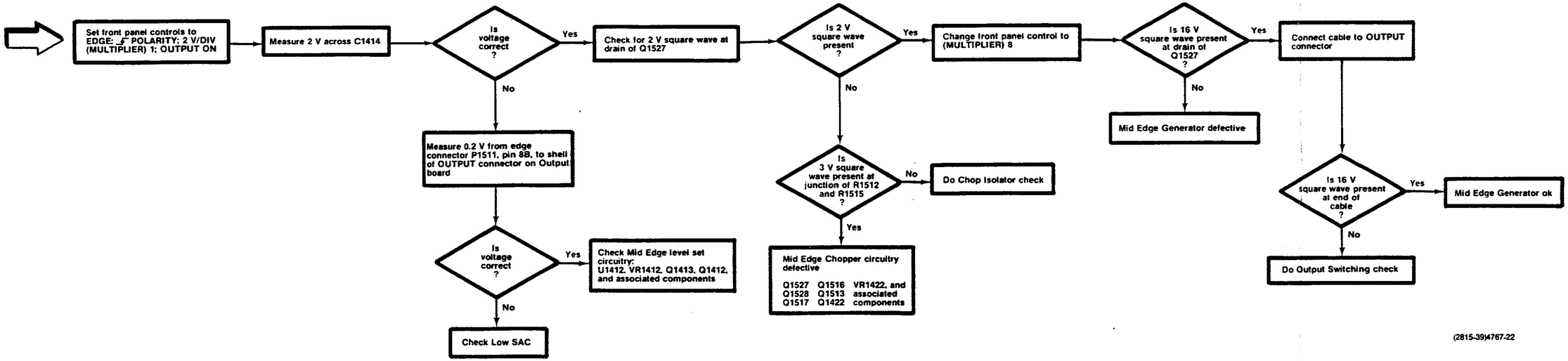


Fig. 9-16

LOW EDGE GENERATOR CHECK TROUBLESHOOTING TREE 11

MID EDGE GENERATOR CHECK 24 A7

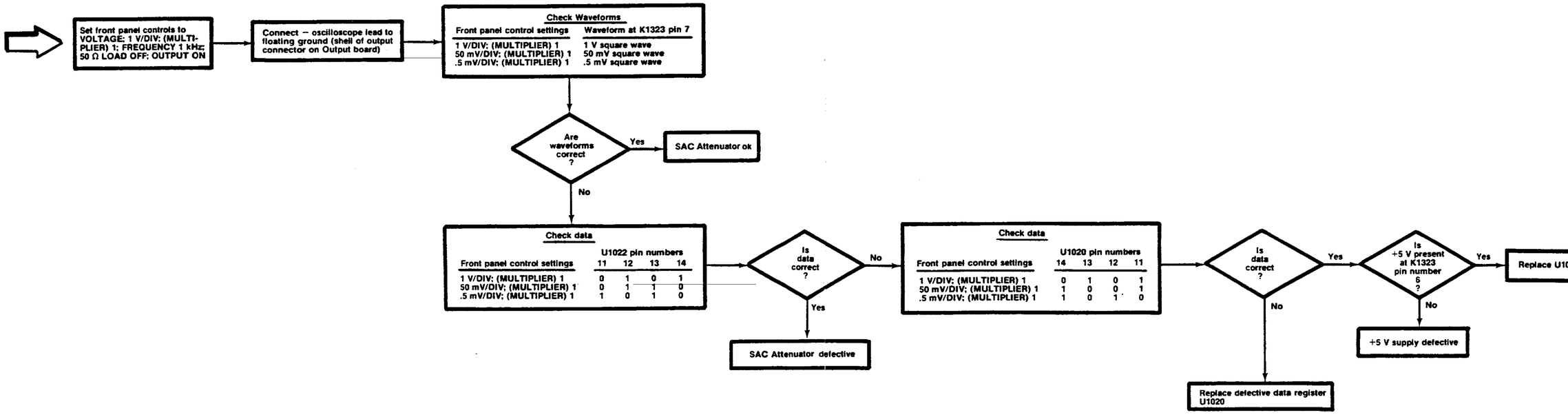


(2815-39)4767-22

Fig. 9-17

MID EDGE GEN CHECK TROUBLESHOOTING TREE 12

SAC ATTENUATOR CHECK 25 A7

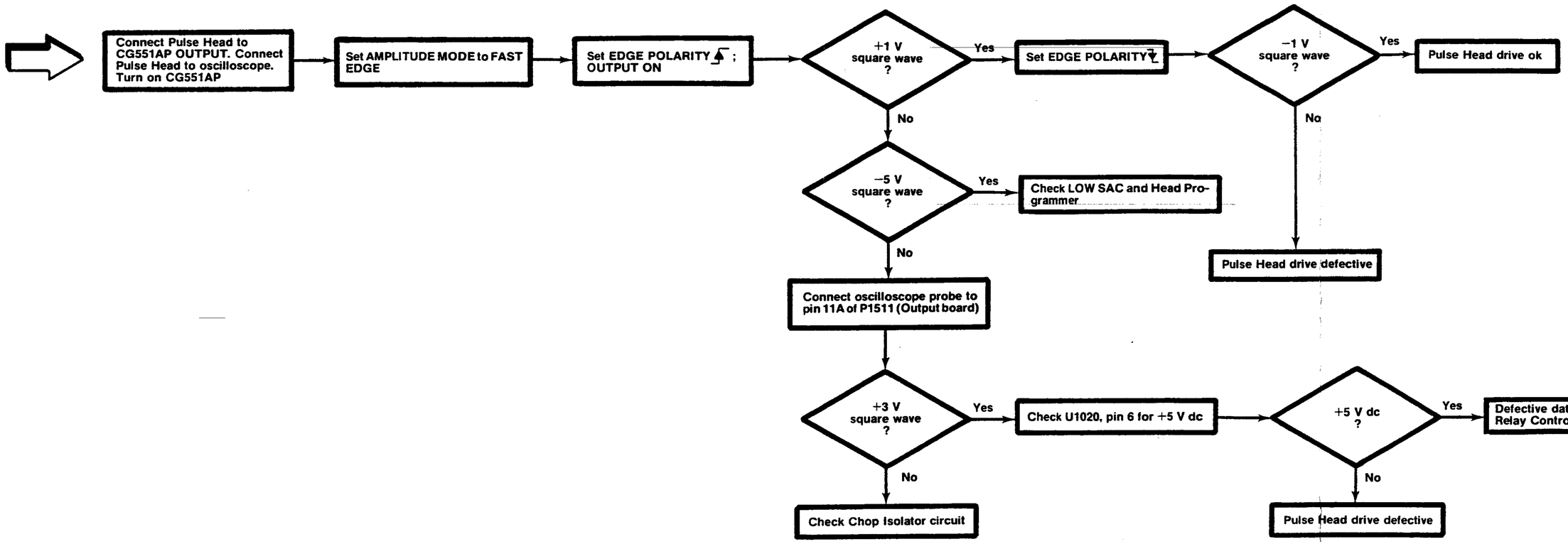


(2815-40)4767-23

Fig. 9-18

SAC ATTENUATOR CHECK TROUBLESHOOTING TREE 13

PULSE HEAD DRIVE CHECK ◇24◇ A7



(2815-41)4767-24

Fig. 9-19

PULSE HEAD DRIVE CHECK TROUBLESHOOTING TREE 14

OUTPUT SWITCHING (CURRENT LOOP) CHECK 25 A7

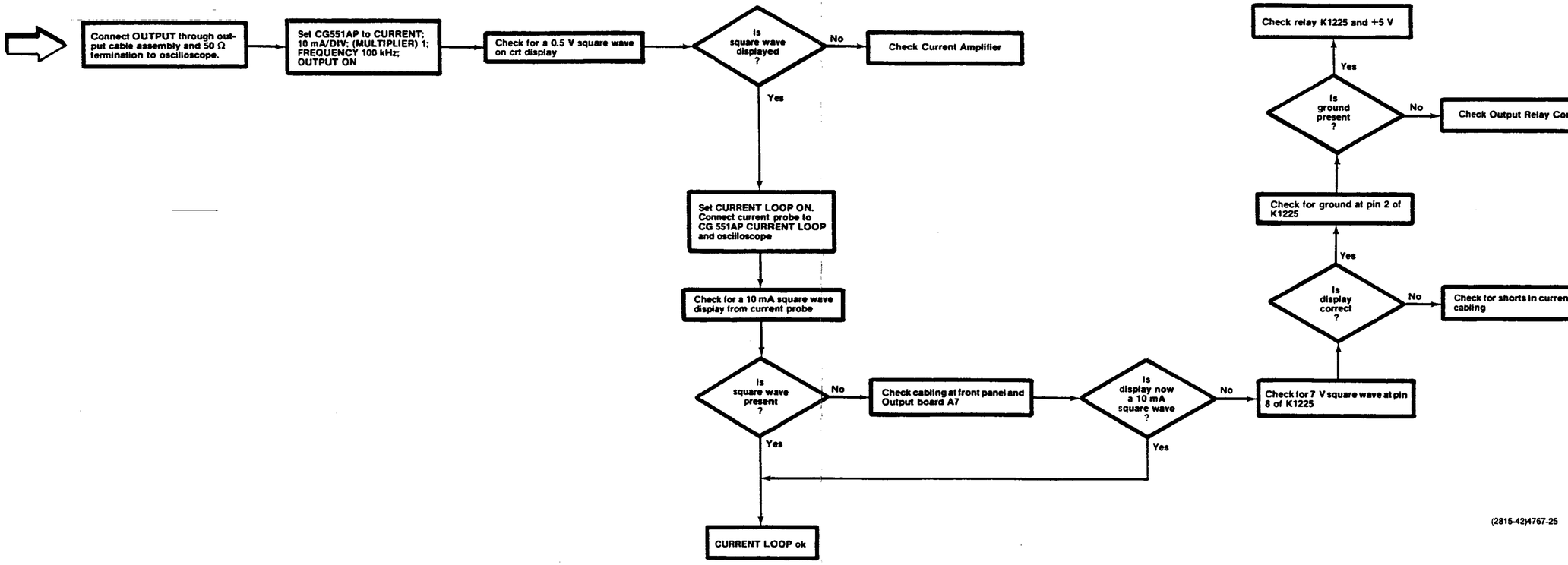
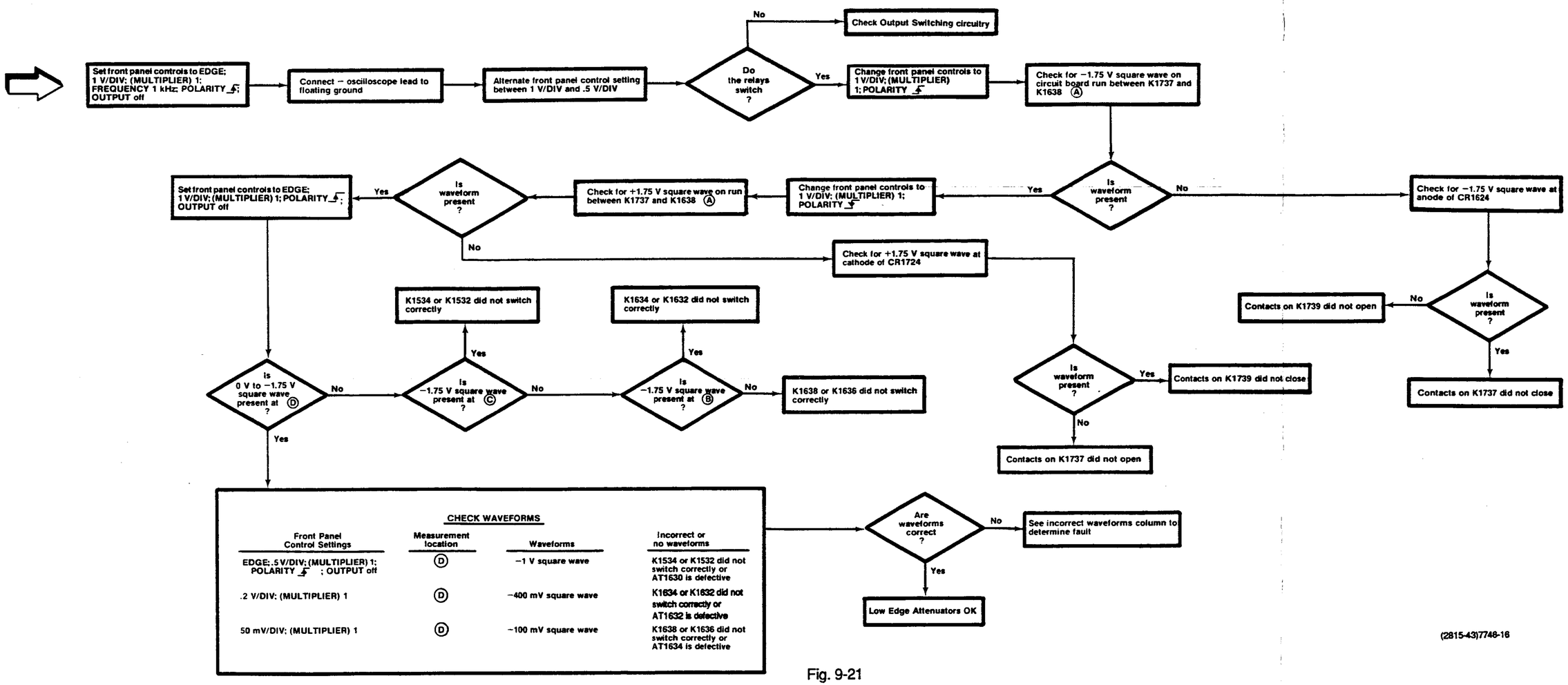


Fig. 9-20

CURRENT LOOP CHECK TROUBLESHOOTING TREE 15

LOW EDGE ATTENUATOR CHECK 23 A7

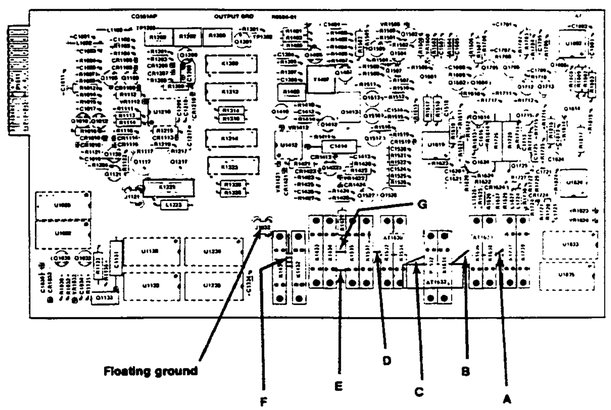


(2815-43)7748-16

Fig. 9-21

LOW EDGE ATTEN CHECK TROUBLESHOOTING TREE 16

OUTPUT SWITCHING (VOLTAGE) CHECK ◇25◇ A7



Set front panel controls to EDGE: 1 V/DIV; (MULTIPLIER) 1; FREQUENCY 1 kHz; ⊥; OUTPUT ON

Alternate front panel controls between 1 V/DIV and .5 V/DIV. Listen for switching relays

Are relays switching ?

Yes

No

Connect oscilloscope lead to TP1302

Alternate front panel controls between 1 V/DIV and .5 V/DIV and look for +8 V, 6ms wide pulses on collector of Q1133

Check Waveforms

Front panel control settings	Waveform at OUTPUT connector	If waveform is not present at main output but is present on circuit board run between K1434 and K1535, Ⓖ then:	If waveform is present on circuit board run between K1434 and K1535, Ⓖ then:
VOLTAGE: 1 V/DIV; (MULTIPLIER) 1; FREQUENCY 1 kHz; OUTPUT ON; 50 Ω LOAD OFF	+1 V square wave	K1432 did not close	K1433 did not close
EDGE: 2 V/DIV; (MULTIPLIER) 1; ⊥; FREQUENCY 1 kHz; OUTPUT ON	−2 V square wave	K1432 did not close	K1434 did not close
EDGE: 20 V/DIV; (MULTIPLIER) 1; ⊥; FREQUENCY 1 kHz; OUTPUT ON	−20 V square wave	K1432 did not close	K1535 did not close
EDGE: 1 V/DIV; (MULTIPLIER) 1; ⊥; FREQUENCY 1 kHz; OUTPUT ON	−2 V square wave (no 50 Ω load)	K1432 did not close	K1537 did not close

Are the waveforms correct in amplitude ?

No → The output is connected to more than one input because a relay did not open

Yes

Attach the Pulse Head to the OUTPUT CONNECTOR. Set the front panel controls to FAST EDGE: ⊥; FREQUENCY 1 kHz; OUTPUT ON

Is −5 V square wave present at main OUTPUT connector ?

No → K1433 did not close or (tested earlier) K1432 did not close

Yes

Set front panel controls to MARKERS; 1MS/DIV; OUTPUT ON

Are markers present at OUTPUT connector ?

No → Check for markers on the circuit board run near the end of K1434 and K1535 Ⓔ

Yes

Check for <1 kΩ between TP1302 and floating ground

Less than 1 kΩ ?

No → K1432 did not close

Yes

Output switching ok

Check for markers on the run between K1431 and K1432 Ⓕ

Are markers present ?

Yes

No

K1535 or K1537 did not close

Are markers present ?

Yes

No

K1434 did not close

K1431 did not close

Yes

Check relay latches and drivers

Is waveform correct ?

Yes

No

Is +11.5 V present on + end of C1131 ?

No → Do Power Supply test

Yes

Check for <1 kΩ between TP1302 and collector of Q1133

Less than 1 kΩ ?

No → Relay driver is defective

Yes

A latching relay is shorted between common pin and ground

Fig. 9-22

(2815-44)4767-27

OUTPUT SWITCHING CHECK TROUBLESHOOTING TREE 17

HIGH EDGE GENERATOR CHECK 27 A8

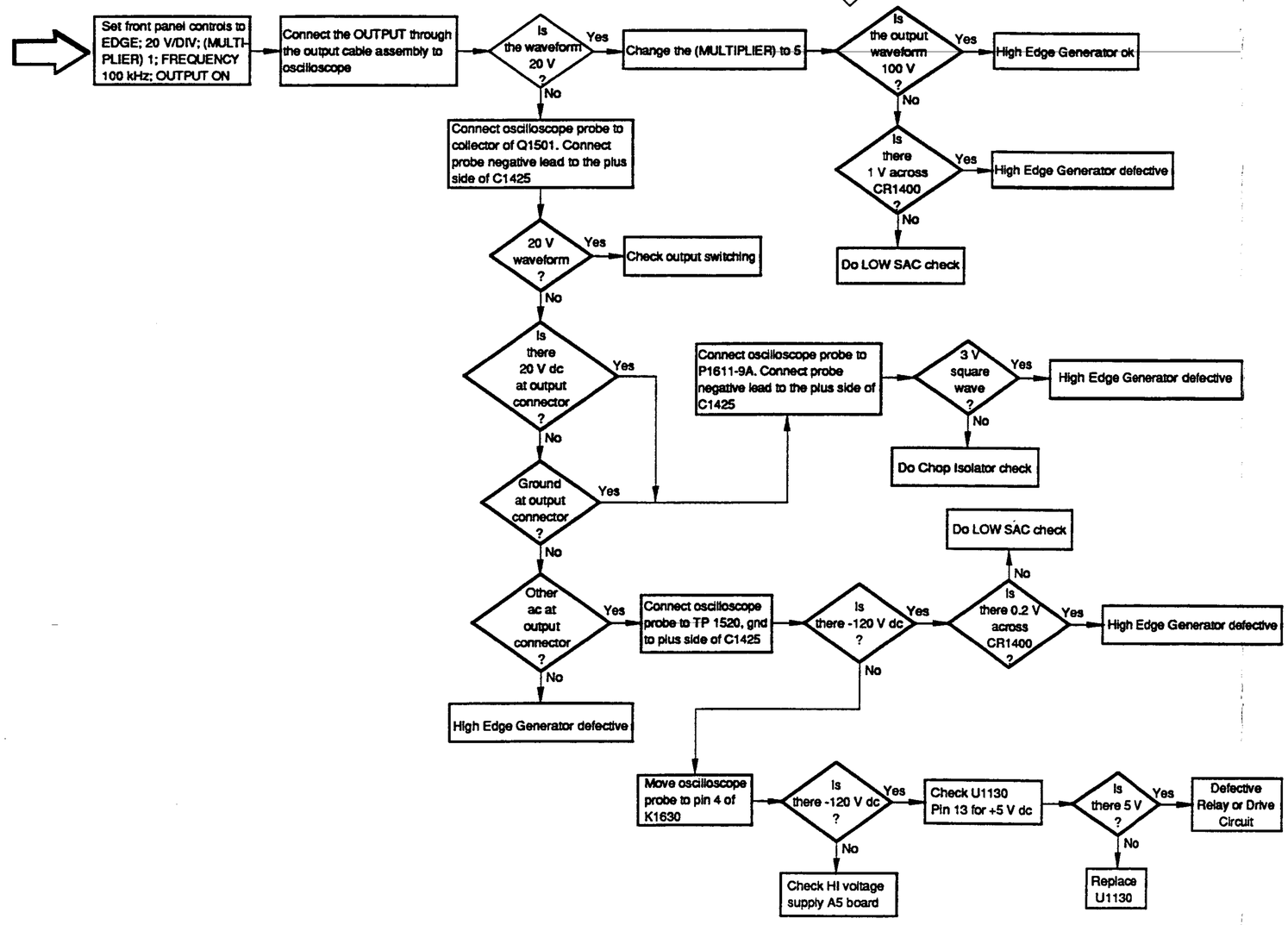
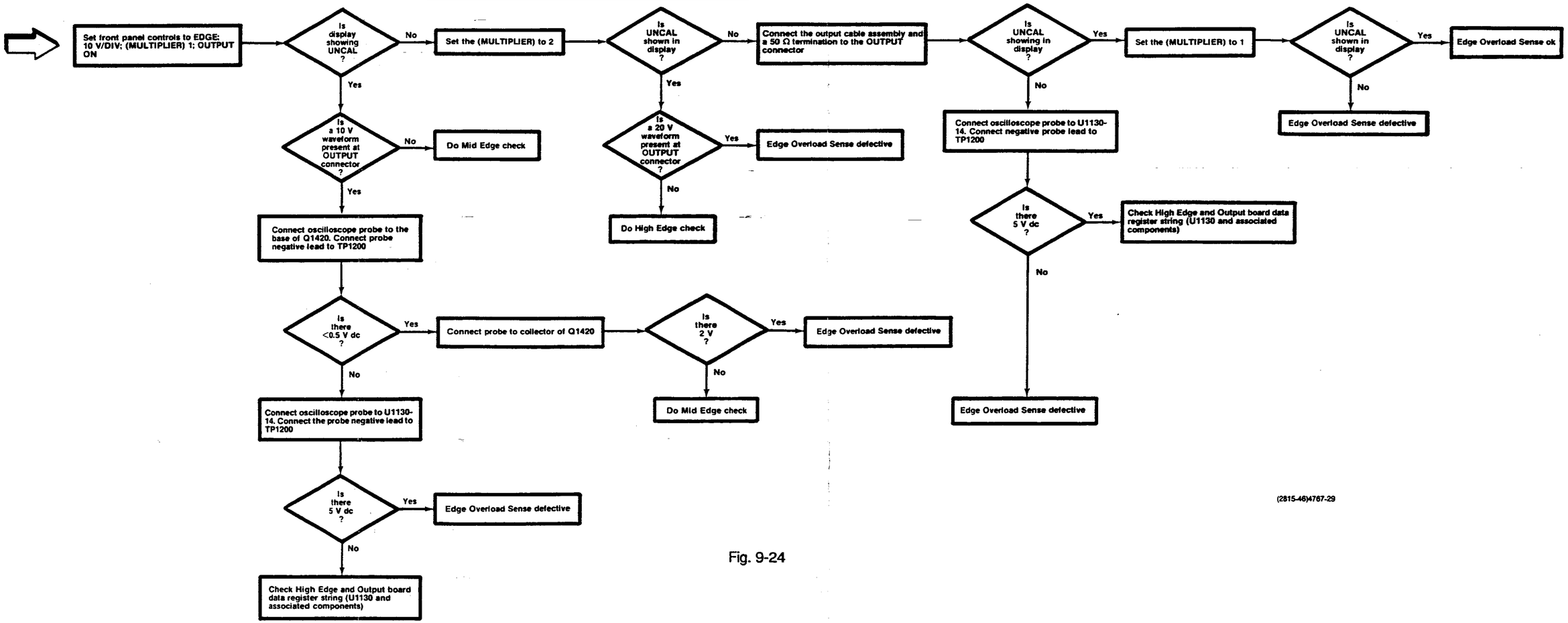


Fig. 9-23

HIGH EDGE GEN CHECK
TROUBLESHOOTING TREE 18

EDGE OVERLOAD SENSE CHECK 27 A8

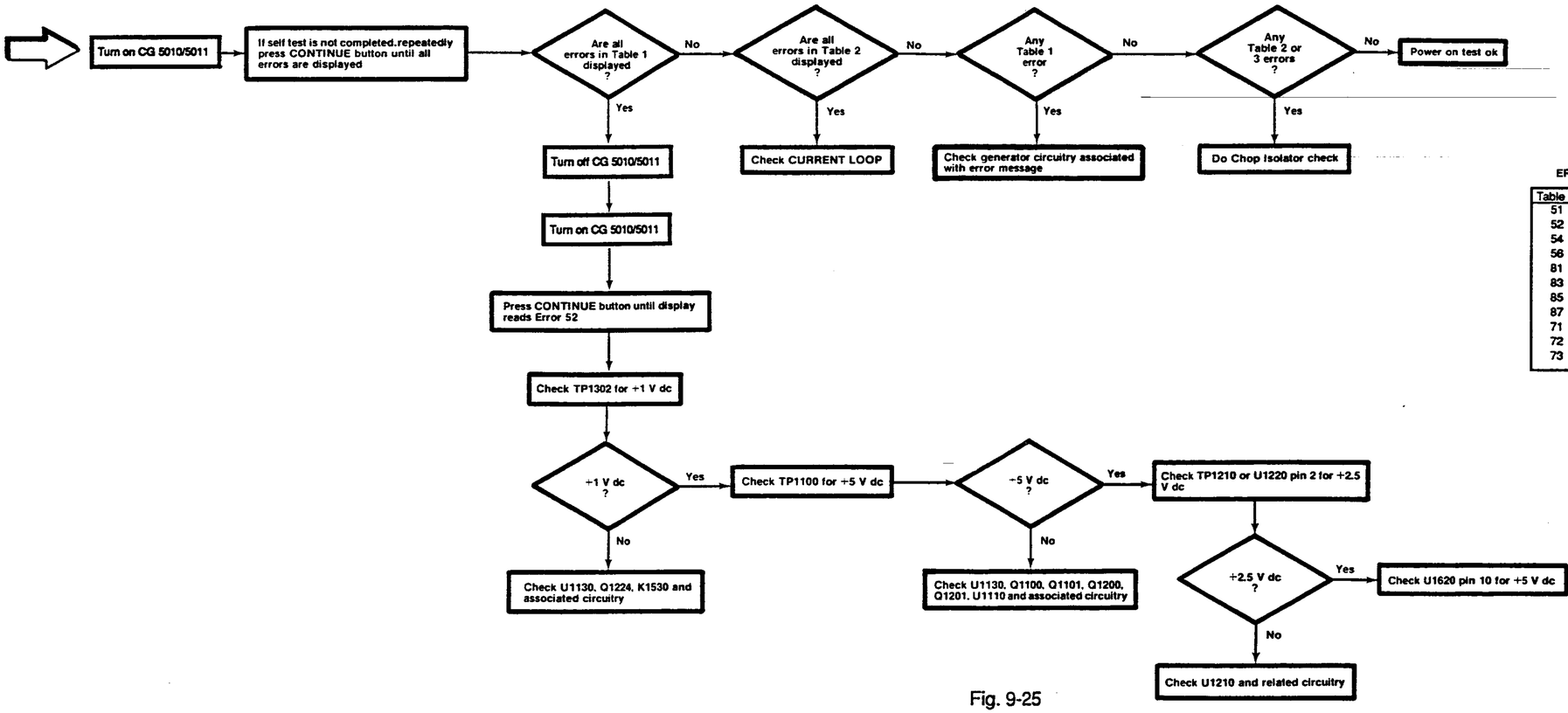


(2815-46)4767-29

Fig. 9-24

EDGE OVERLOAD SENCE CHECK TROUBLESHOOTING TREE 19

POWER ON TEST CHECK 26 A8



ERROR CODES

Table 1	Table 2	Table 3
51	51	53
52	56	55
54	81	57
56	83	82
81	71	84
83		86
85		88
87		
71		
72		
73		

Fig. 9-25

POWER ON TEST CHECK TROUBLESHOOTING TREE 20

HEAD PROGRAMMER CHECK 26 A8

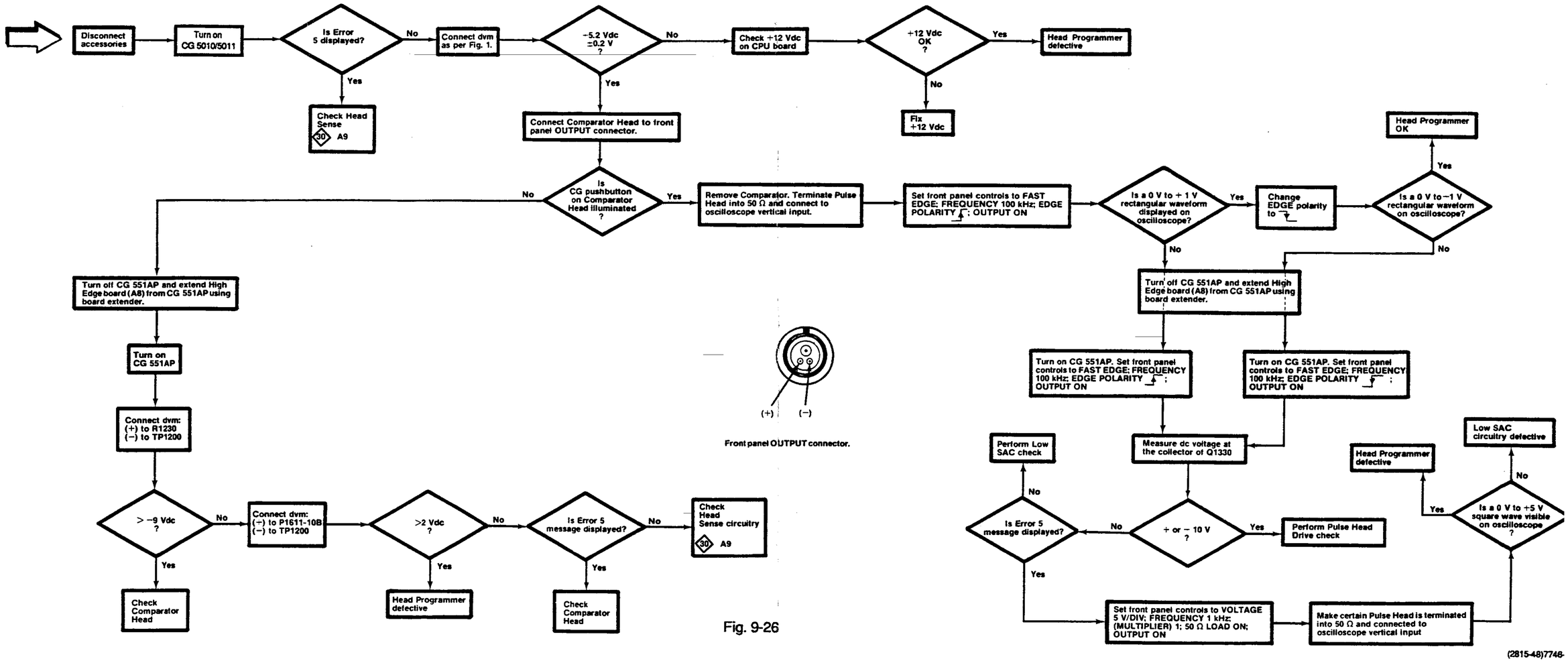
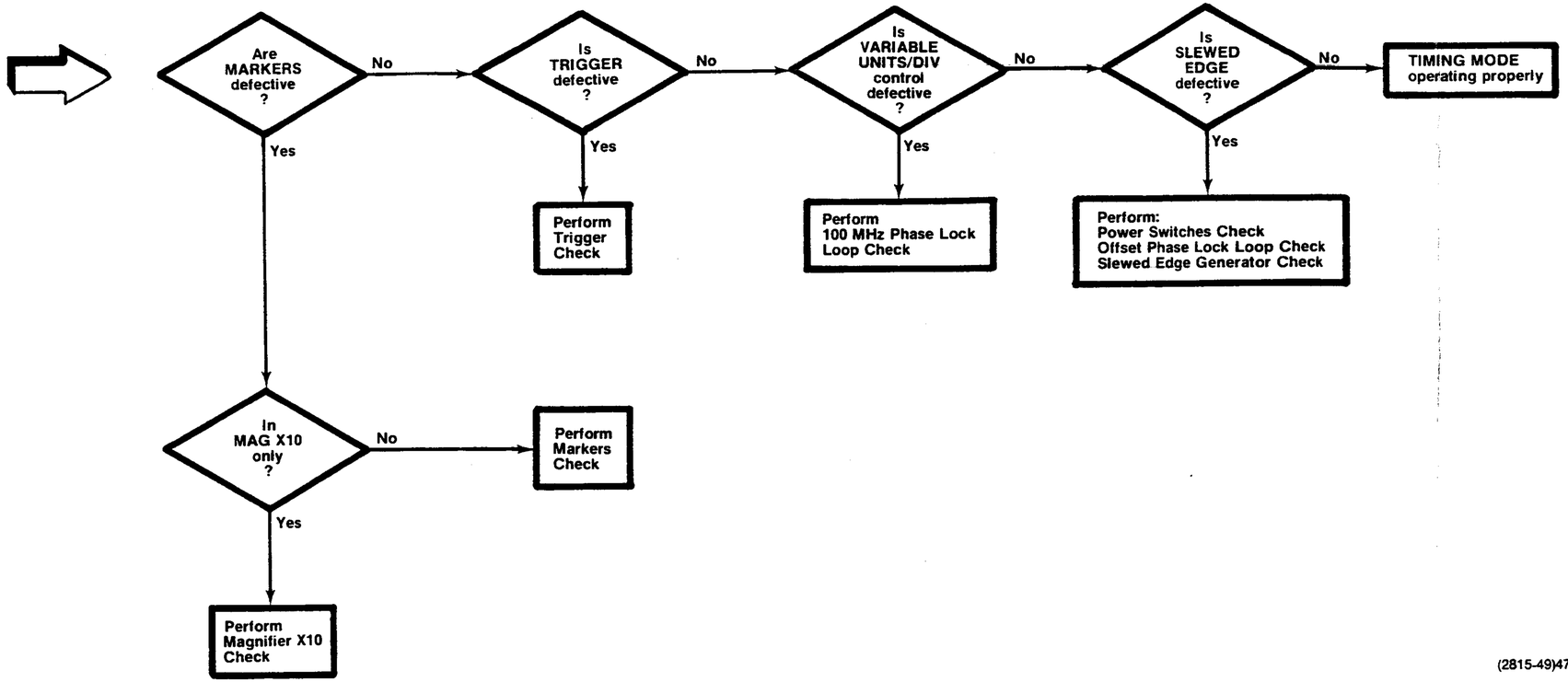


Fig. 9-26

HEAD PROGRAMMER CHECK TROUBLESHOOTING TREE 21

TIMING MODE CHECK

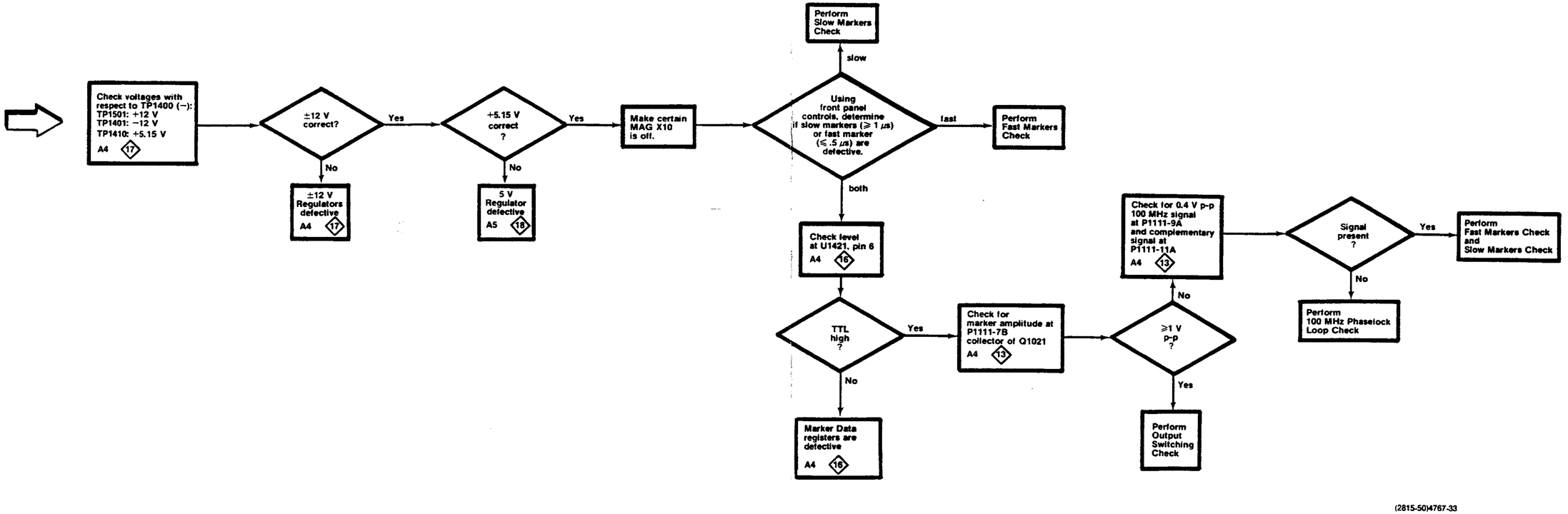


(2815-49)4767-32

Fig. 9-27

TIMING MODE CHECK
TROUBLESHOOTING TREE 22

MARKERS CHECK 13 16 17 A4 18 A5



(2815-50)4767-33

Fig. 9-28

MARKERS CHECK
TROUBLESHOOTING TREE 23

FAST MARKERS (≤ 500 ns) CHECK ◇13 ◇14 ◇16 A4 ◇25 A7

Assumes slow markers (≥ 1 μs) are present at output

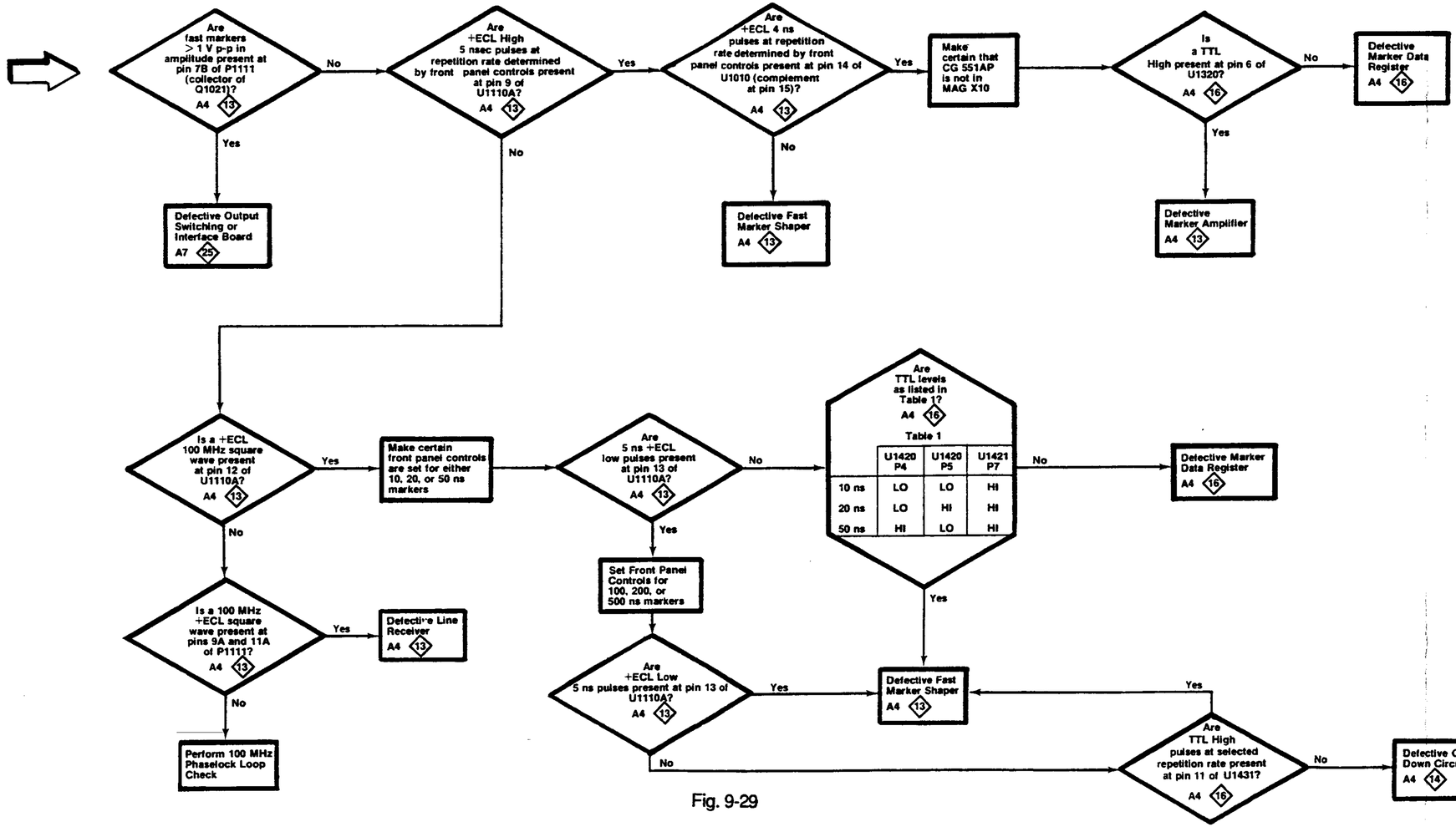


Fig. 9-29

(2815-51)4767-34

FAST MARKERS CHECK TROUBLESHOOTING TREE 24

SLOW MARKERS (≥ 1 μs) CHECK ◇14 ◇16 ◇17 A4 ◇18 A5

This chart assumes fast markers (≤ 500 ns) are present at OUTPUT connector

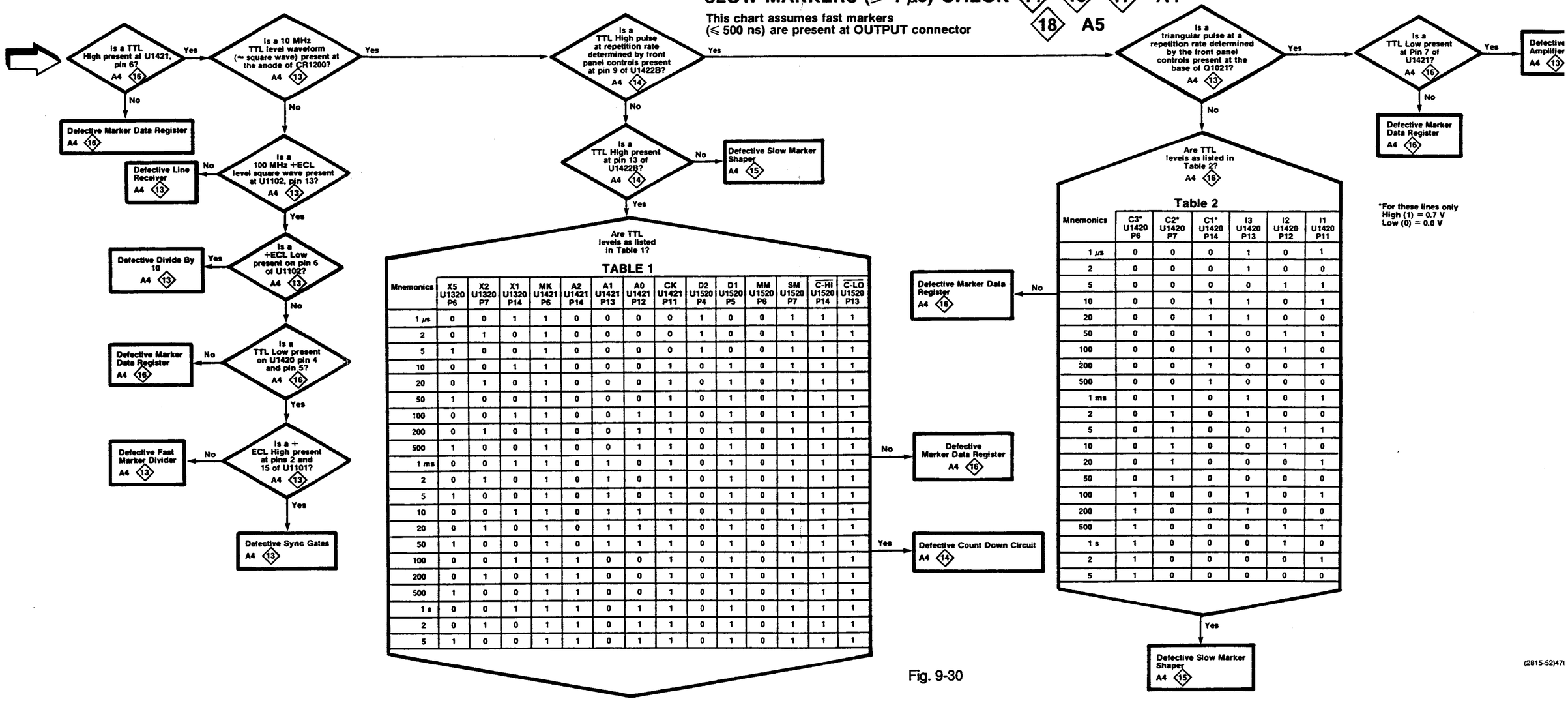


Fig. 9-30

(2815-52)47

SLOW MARKERS CHECK TROUBLESHOOTING TREE 25

MAGNIFIER X10 CHECK 13 15 16 A4

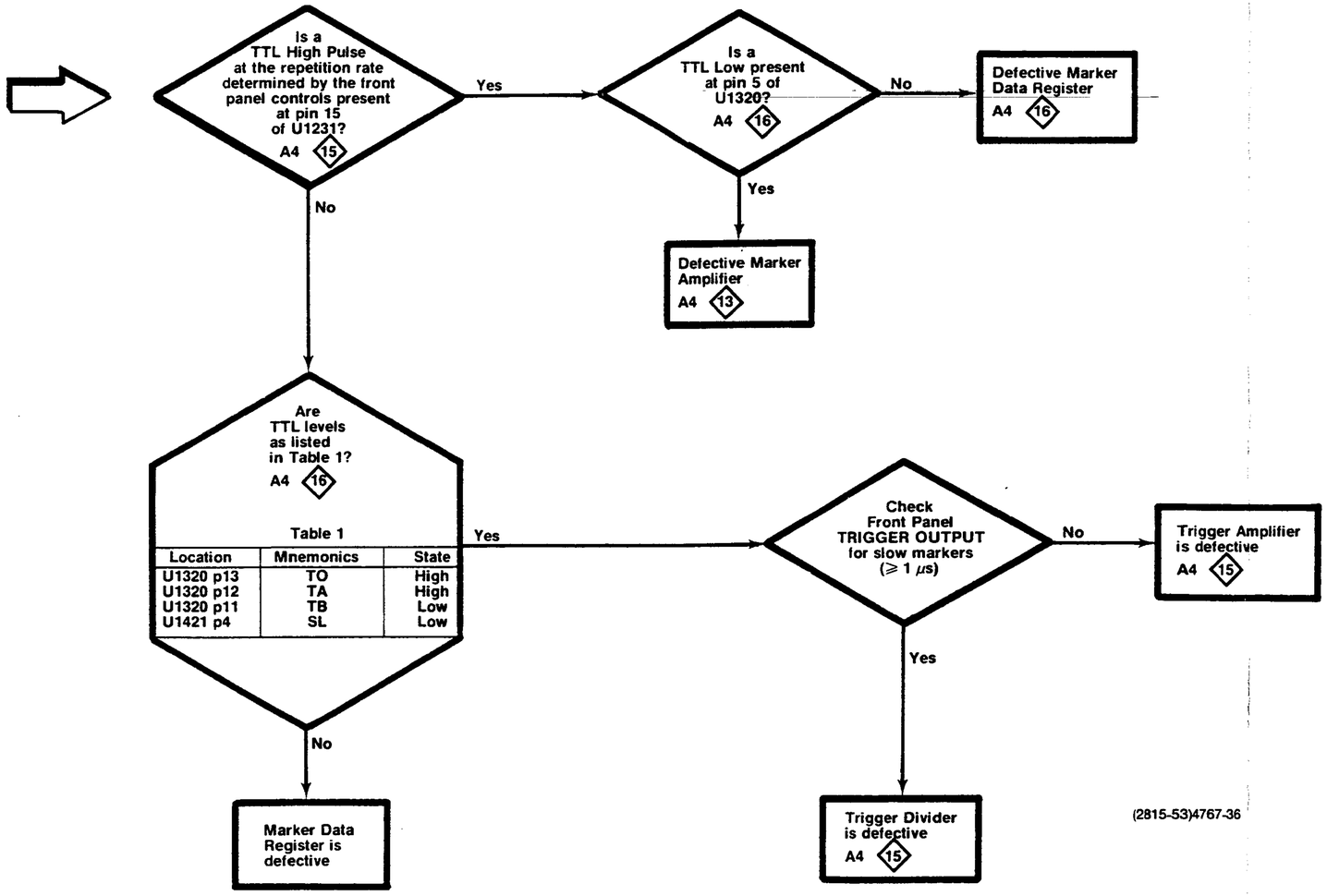


Fig. 9-31

MAGNIFIER X10 CHECK TROUBLESHOOTING TREE 26

TRIGGER CHECK ◇13 ◇14 ◇16 ◇17 A4 ◇18 A5

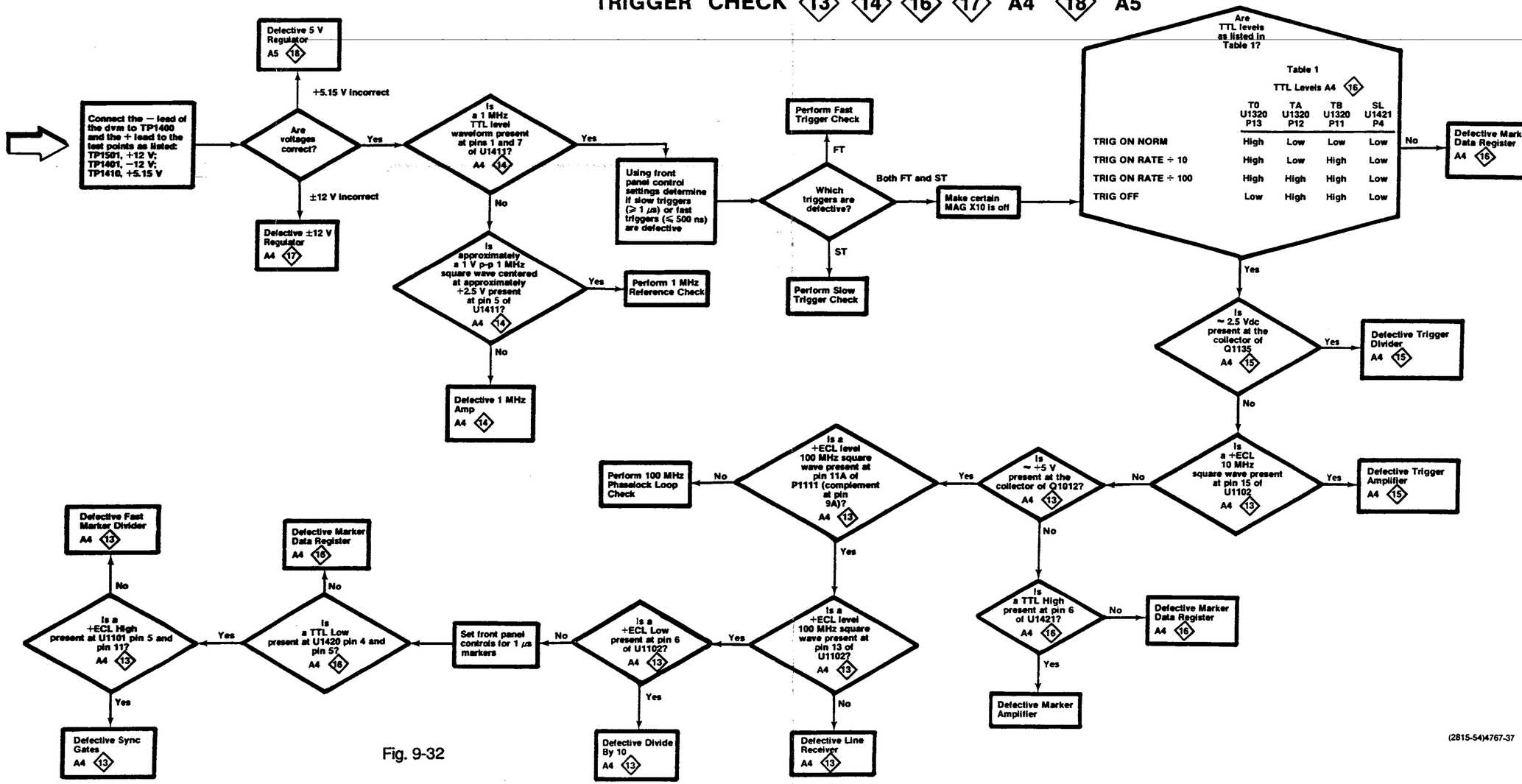


Fig. 9-32

(2815-54)4767-37

TRIGGER CHECK
TROUBLESHOOTING TREE 27

FAST TRIGGER (⩽ 500 ns) CHECK 13 14 15 16 A4

This check assumes that the slow triggers are operating properly

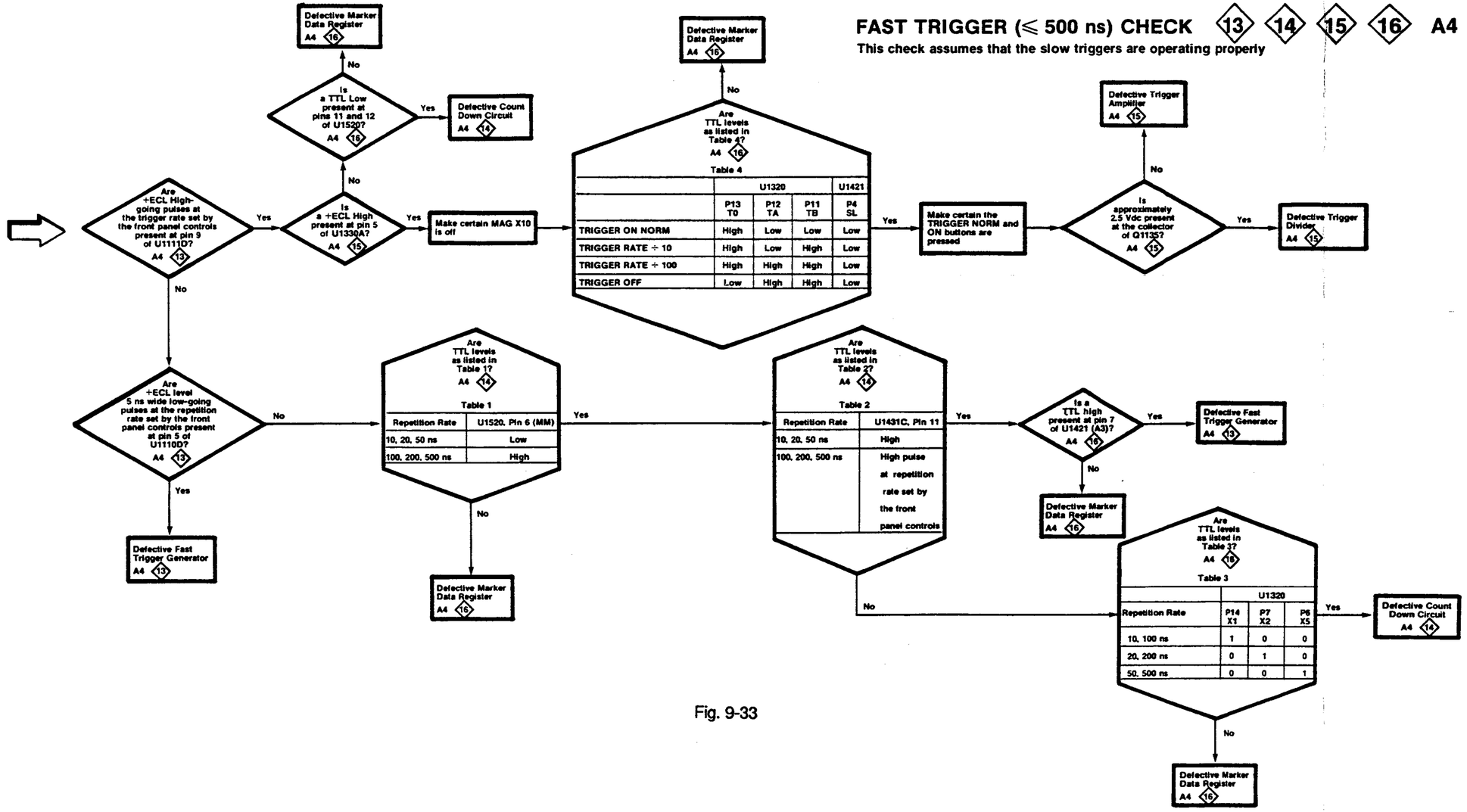


Fig. 9-33

(2815-55)4787-38

FAST TRIGGER CHECK TROUBLESHOOTING TREE 28

SLOW TRIGGER (≥ 1 μs) CHECK 13 14 15 16 A4

Assumes Fast Triggers are working properly

Is a TTL 10 MHz square wave present at the anode of CR1200? A4 13

Yes

No

Defective Divide By 10 A4 13

Are TTL levels as listed in Table 1? A4 16

No

Defective Marker Data Register A4 16

Table 1

	U1320			U1421					U1520						
	X5 P6	X2 P7	X1 P14	MK P6	A2 P14	A1 P13	A0 P12	CK P11	D2 P4	D1 P5	MM P6	$\overline{CH}$ P14	$\overline{CL}$ P13	SC P12	FC P11
1 μs	0	0	1	1	0	0	0	0	1	0	0	1	1	1	0
2 μs	0	1	0	1	0	0	0	0	1	0	0	1	1	1	0
5 μs	1	0	0	1	0	0	0	0	1	0	0	1	1	1	0
10 μs	0	0	1	1	0	0	0	1	0	1	0	1	1	1	0
20 μs	0	1	0	1	0	0	0	1	0	1	0	1	1	1	0
50 μs	1	0	0	1	0	0	0	1	0	1	0	1	1	1	0
100 μs	0	0	1	1	0	0	1	1	0	1	0	1	1	1	0
200 μs	0	1	0	1	0	0	1	1	0	1	0	1	1	1	0
500 μs	1	0	0	1	0	0	1	1	0	1	0	1	1	1	0
1 ms	0	0	1	1	0	1	0	1	0	1	0	1	1	1	0
2 ms	0	1	0	1	0	1	0	1	0	1	0	1	1	1	0
5 ms	1	0	0	1	0	1	0	1	0	1	0	1	1	1	0
10 ms	0	0	1	1	0	1	1	1	0	1	0	1	1	1	0
20 ms	0	1	0	1	0	1	1	1	0	1	0	1	1	1	0
50 ms	1	0	0	1	0	1	1	1	0	1	0	1	1	1	0
100 ms	0	0	1	1	1	0	0	1	0	1	0	1	1	1	0
200 ms	0	1	0	1	1	0	0	1	0	1	0	1	1	1	0
500 ms	1	0	0	1	1	0	0	1	0	1	0	1	1	1	0
1 s	0	0	1	1	1	0	1	1	0	1	0	1	1	1	0
2 s	0	1	0	1	1	0	1	1	0	1	0	1	1	1	0
5 s	1	0	0	1	1	0	1	1	0	1	0	1	1	1	0

Yes

Is a TTL low present at pin 7 of U1421 (A3)? A4 16

No

Defective Marker Data Register A4 16

Yes

Defective Fast Trigger Generator A4 13

Is a +ECL low present at pin 13 of U1330C? A4 15

No

Yes

Is a +ECL square wave at a repetition rate determined by the front panel controls present at pin 5 of U1330A? A4 15

No

Yes

Defective Count Down Circuit A4 14

Make Certain MAG X10 is off

Are TTL levels as listed in Table 2? A4 16

No

Defective Marker Data Register A4 16

Table 2

	U1320			U1421
	T0 P13	TA P12	TB P11	SC P4
TRIGGER ON NORM	High	Low	Low	Low
TRIGGER ON RATE ÷ 10	High	Low	High	Low
TRIGGER ON RATE ÷ 100	High	High	High	Low
TRIGGER OFF	Low	High	High	Low

Yes

Make certain the TRIGGER NORM button is pressed

Is the collector of Q1135 at approximately 2.5 Vdc? A4 15

No

Defective Trigger Amplifier A4 15

Yes

Defective Trigger Divider A4 15

(2815-56)4767-39

Fig. 9-34

SLOW TRIGGER CHECK TROUBLESHOOTING TREE 29

CHOP CHECK 14 16 17 A4 18 A5

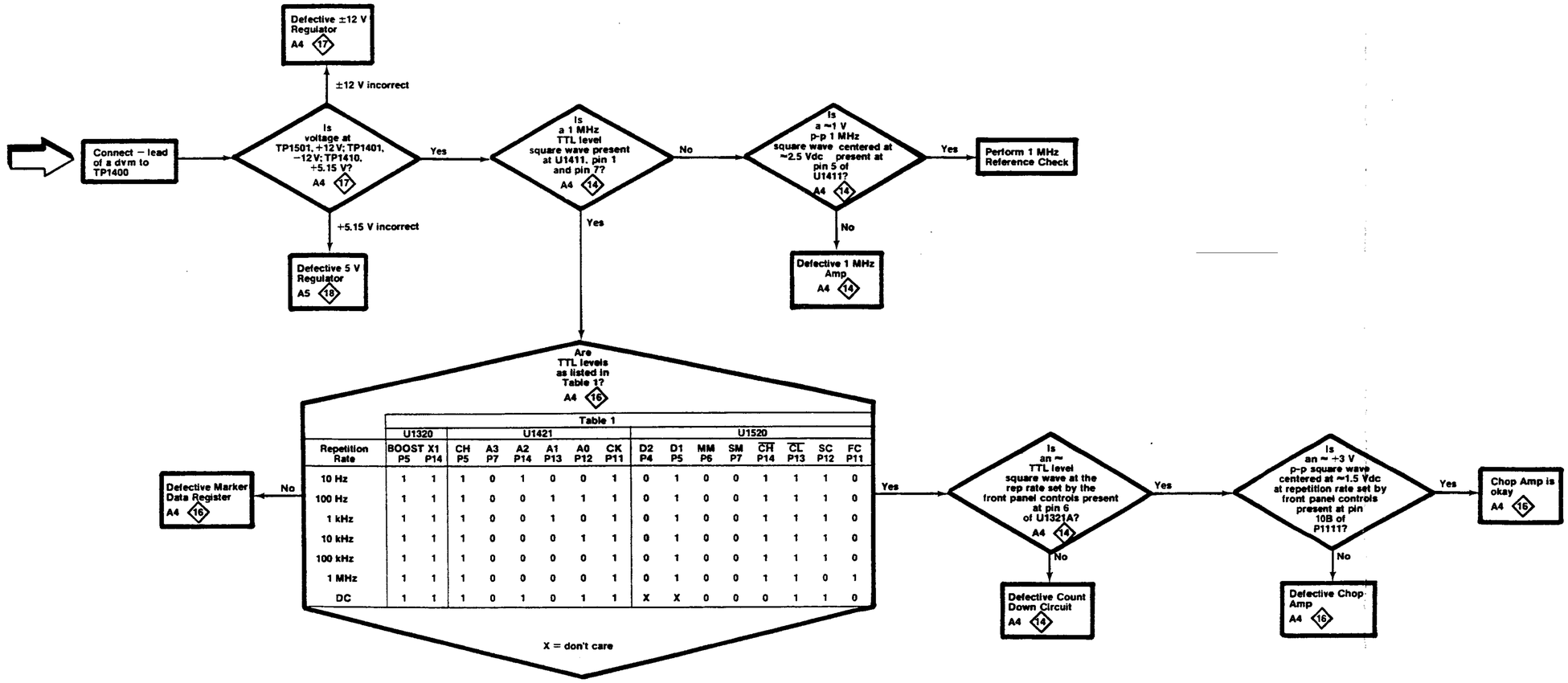
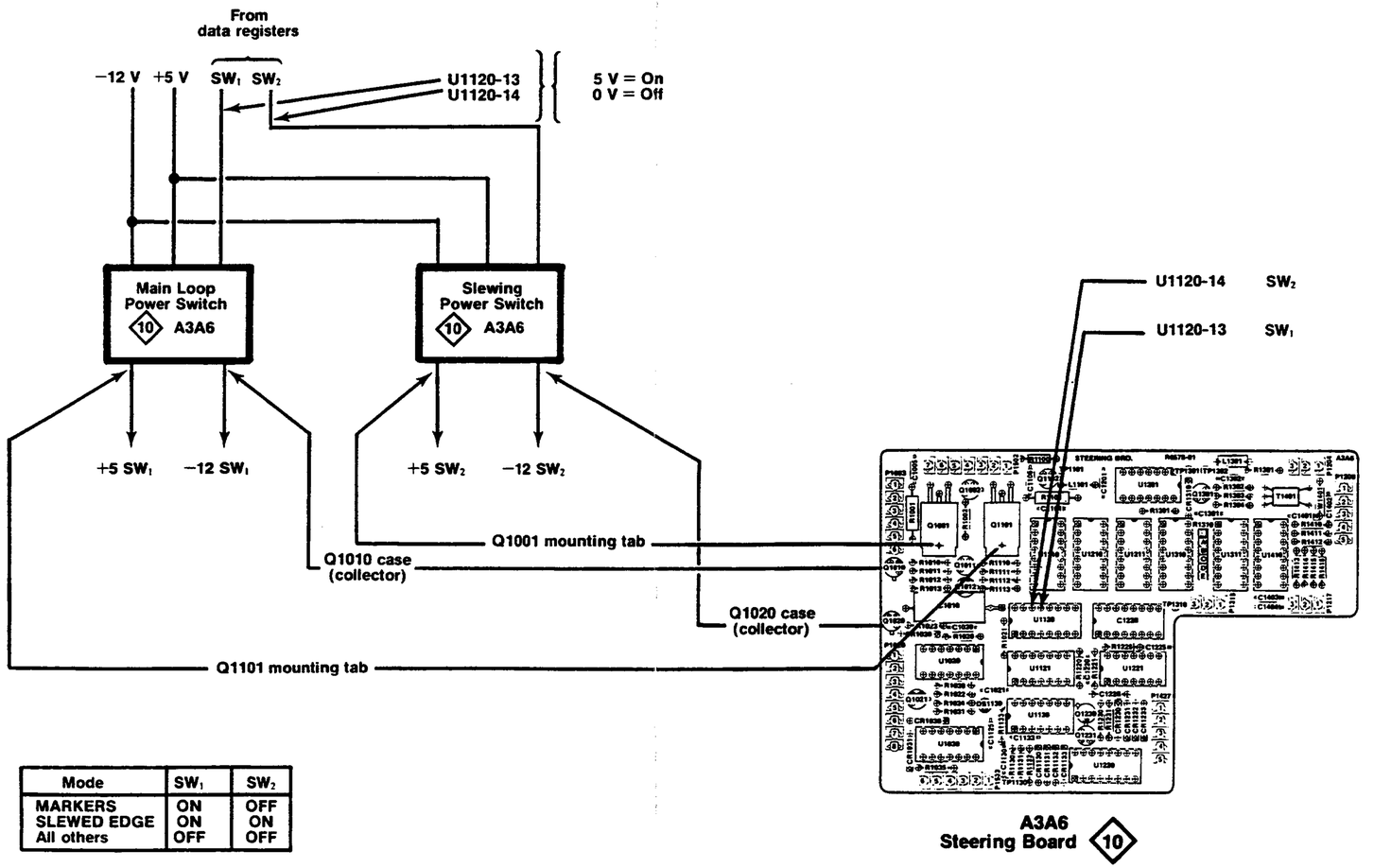


Fig. 9-35

(2815-57)4767-40

CHOP CHECK TROUBLESHOOTING TREE 30

POWER SWITCHES CHECK 10 A3A6 A3A8



Mode	SW_1	SW_2
MARKERS	ON	OFF
SLEWED EDGE	ON	ON
All others	OFF	OFF

Fig. 9-36

POWER SWITCHES CHECK TROUBLESHOOTING TREE 31

1 MHz REFERENCE CHECK 11 12

A3A6 A3A8

Front panel control settings: MODE MARKERS

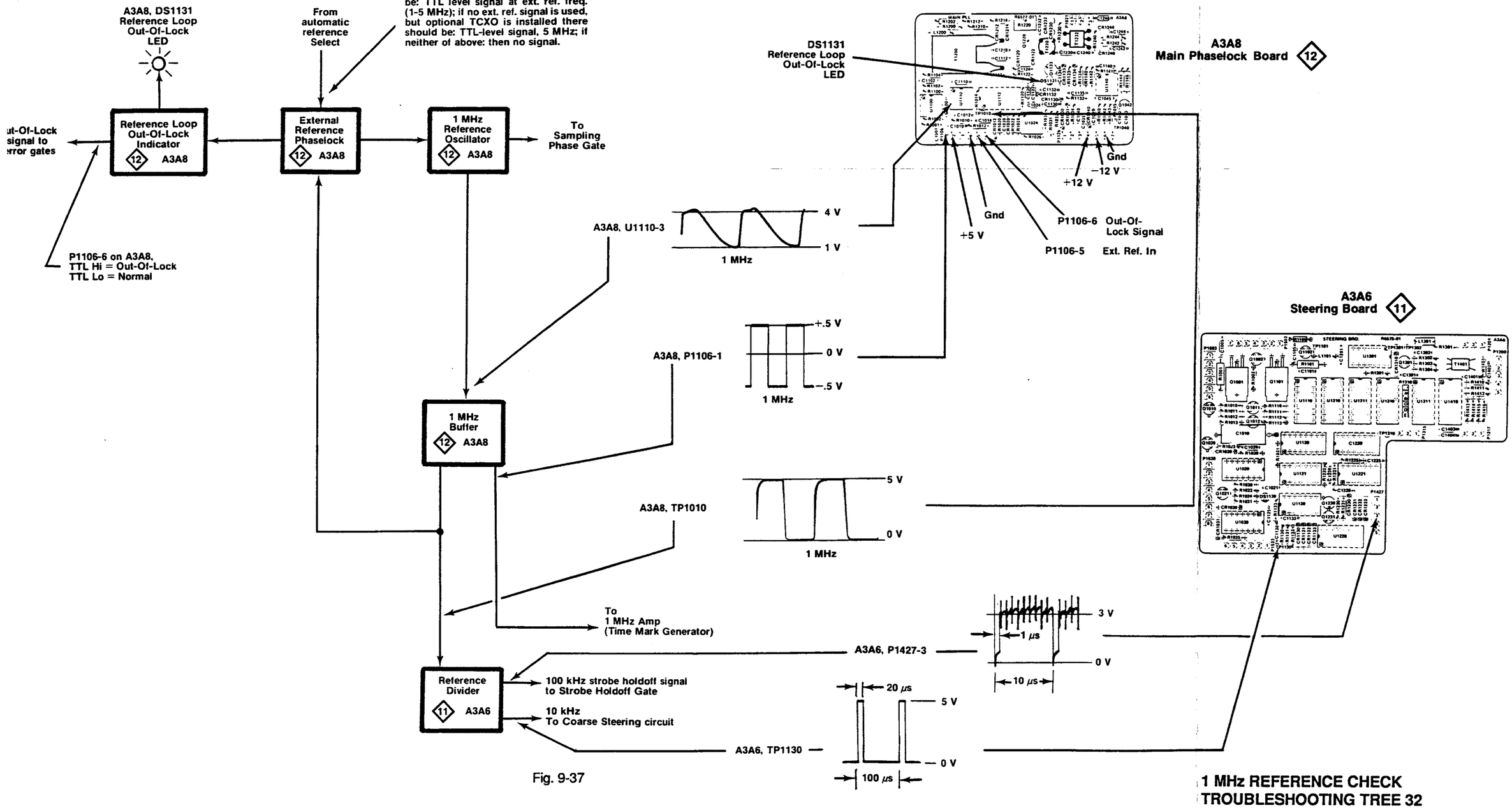


Fig. 9-37

1 MHz REFERENCE CHECK TROUBLESHOOTING TREE 32

OFFSET PHASELOCK LOOP CHECK ◇6 A3A1 A3A3

Front panel control settings: MODE: SLEWED EDGE
UNITS/DIV: .5 ns to .1 μs, unless otherwise noted
VARIABLE: OFF, unless otherwise noted

A3A1, P1615-1, -2
0.2 V p-p, 3.8 V dc bias

50 MHz from Main VCO Divider

Mixer ◇6 A3A1

A3A3, P1424-2
0.4 V p-p sinewave
+3 V dc bias

Offset Loop Filter ◇6 A3A1

Offset VCO ◇6 A3A3

A3A3, P1320-2
Offset clock to slewing counter.
ECL signal*
(See frequency table below)

A3A3 P1420-2
ECL-level signal*
(See frequency table below)

*ECL level:
Hi ≈ 4.2 V
LO ≈ 3.4 V

Offset Divider (÷ 40 or 50) ◇6 A3A1

Sync pulse to slewing control

Offset Select from slewing control A3A1, P1510-1

TTL level	÷	UNITS/DIV
Hi	40	⩾.5 ns
Lo	50	.4 ns

SYNC PULSE
A3A1, P1510-2
ECL* negative pulses
20 ns wide, 820 ns period

VCO tuning voltage
A3A1, TP1140

UNITS/DIV	VARIABLE	Tuning voltage	VCO Freq (Approx)
⩾0.5 ns	0.0%	+5 ±2 V	48.78 MHz
⩾0.5 ns	9.9% FAST	0 ±3 V	53.61 MHz
⩾0.5 ns	9.9% SLOW	+7.5 ±1 V	43.95 MHz
0.4 ns	0.0%	+5 ±2 V	49.02 MHz
0.4 ns	9.9% FAST	0 ±3 V	53.87 MHz
0.4 ns	9.9% SLOW	7.5 ±1 V	44.17 MHz

Offset Loop Phase Detector ◇6 A3A1

A3A1, TP1220
TTL square wave
820 ns period @ ⩾0.5 ns/div
1020 ns period @ 0.4 ns/div

A3A1, TP1210
TTL level pulses
820 ns period
1020 ns period

A3A1, U1220-9
TTL level narrow positive pulses
820 ns period

A3A1, U1220-13
TTL level narrow negative pulses
820 ns period

P1615-2
P1615-1
50 MHz from Main VCO Divider

A3A1, DS1142
Out-Of-Lock LED

Offset Loop Out-Of-Lock Indicator ◇6 A3A1

A3A1, P1521-6
TTL Lo = locked
TTL Hi = unlocked

Out-Of-Lock signal to error gates

A3A1, U1130-12
TTL Hi = locked
TTL Lo = unlocked

Acquisition Circuit ◇6 A3A1

U1130-3

U1130-12

DS1142 Out-Of-Lock LED

U1030-7

P1521-6 Out-Of-Lock signal

A3A1 Offset Phaselock Board ◇6

Gnd
12 V
+5 V
+12 V
Gnd
+5 V

P1510-2 Sync pulse
P1510-1 Offset select

Gnd
P1420-2
+5 V

P1320-2
P1434-2
+10.5 V
−12 V
Gnd

A3A3 Offset VCO ◇6

A3A1, U1030-7
Normal: −10 V dc.
During acquisition pulses to +10 V.

A3A1, U1130-3
Normal: TTL high.
During acquisition pulse to TTL low

Fig. 9-38

(2815-60)4767-43

OFFSET PHASELOCK LOOP CHECK TROUBLESHOOTING TREE 33

100 MHz PHASELOCK LOOP CHECK ◇10◇ ◇11◇ ◇12◇ A3A6 A3A7 A3A8

Front Panel Control Settings:
MODE: MARKERS or SLEWED EDGE
VARIABLE OFF, except where noted

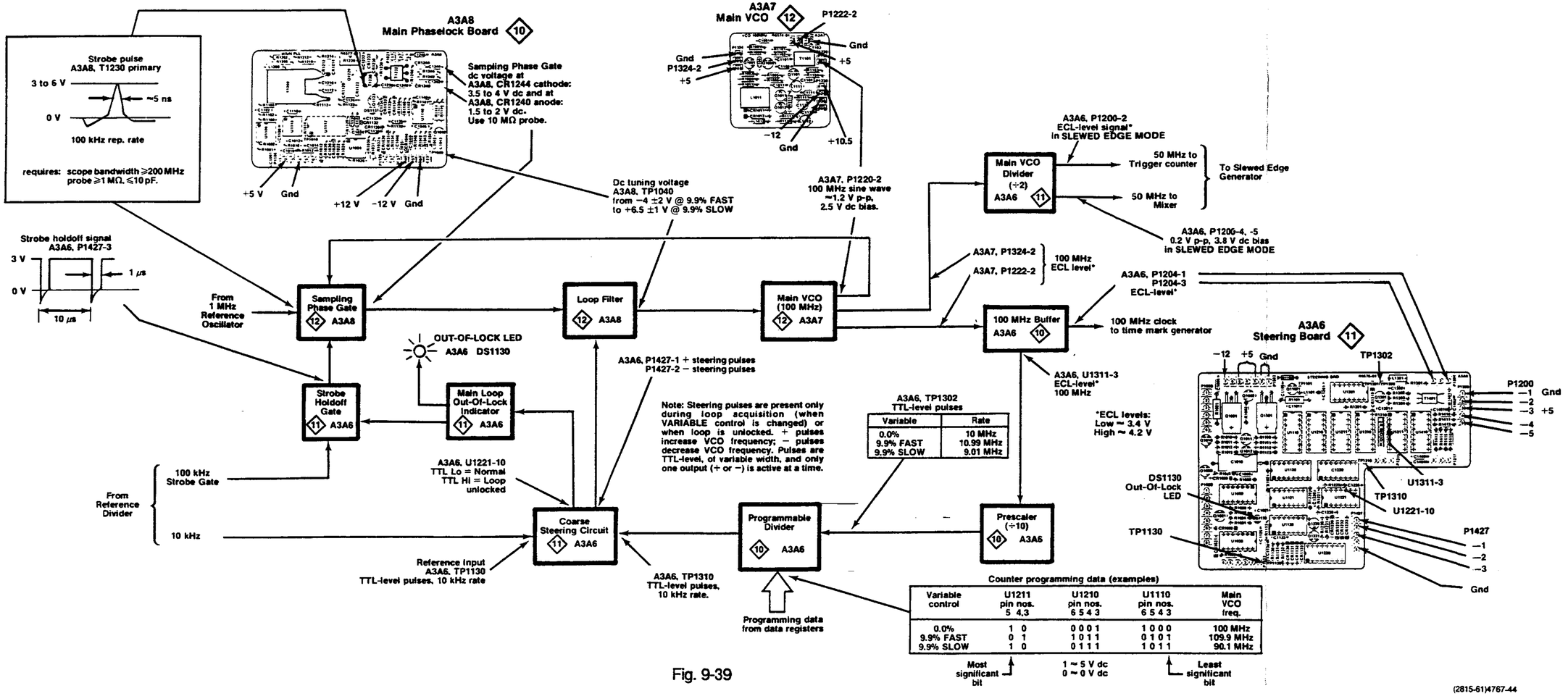


Fig. 9-39

100 MHz PHASELOCK LOOP CHECK TROUBLESHOOTING TREE 34

SLEWED EDGE GENERATOR CIRCUITS CHECK (CG 5010 ONLY)

⑦ ⑧ ⑨ A3A2 A3A4 A3A5

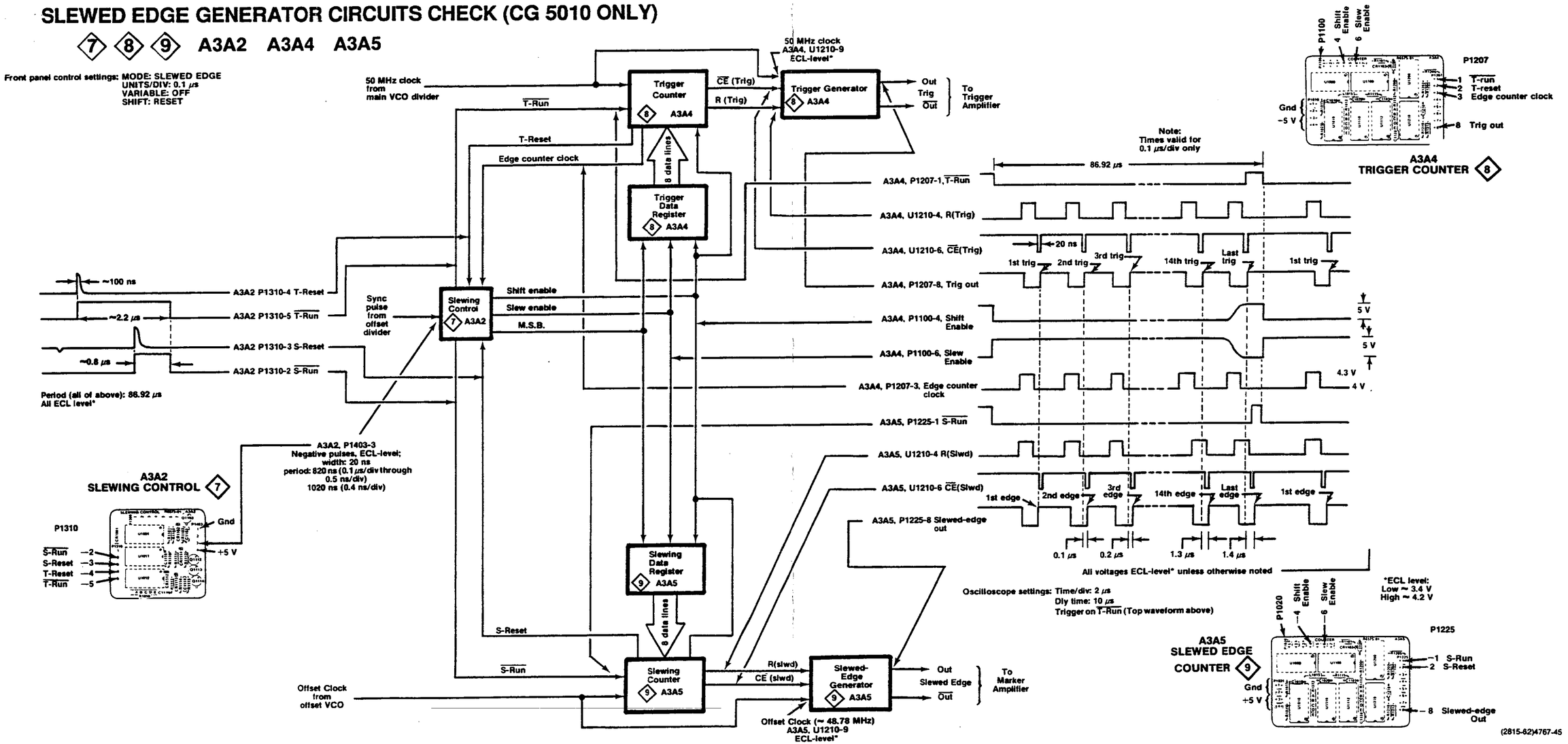
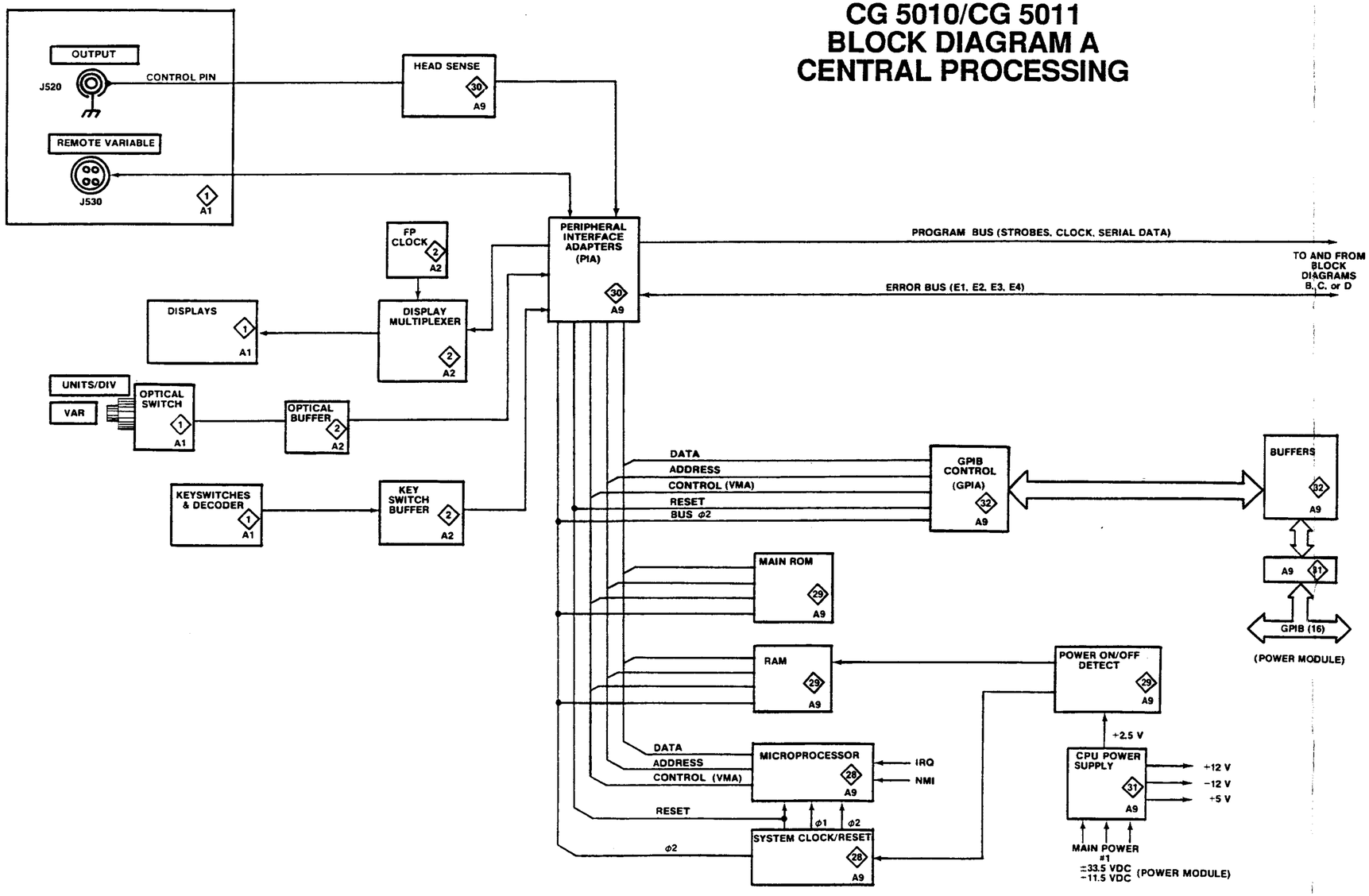


Fig. 9-40

SLEWED EDGE GENERATOR CIRCUITS CHECK TROUBLESHOOTING TREE 35

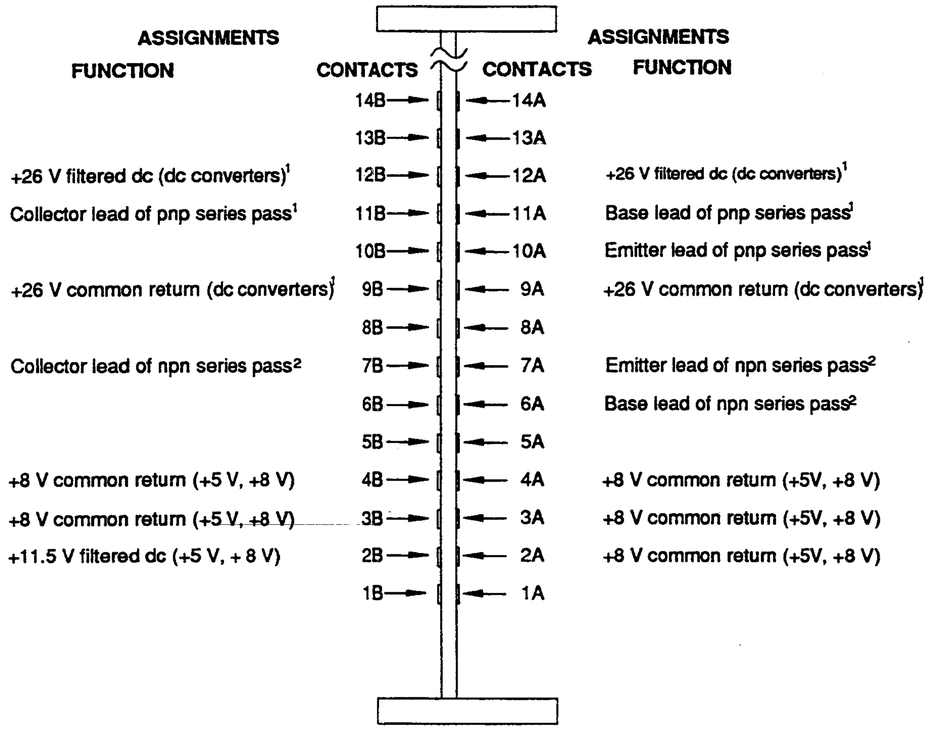
CG 5010/CG 5011
BLOCK DIAGRAM A
CENTRAL PROCESSING



(2815-63)7746-20

BLOCK DIAGRAM A
CENTRAL PROCESSING

Table 9-1
POWER CONNECTIONS
(REAR INTERFACE)
PS INTERFACE BOARD
A5A2
P1003



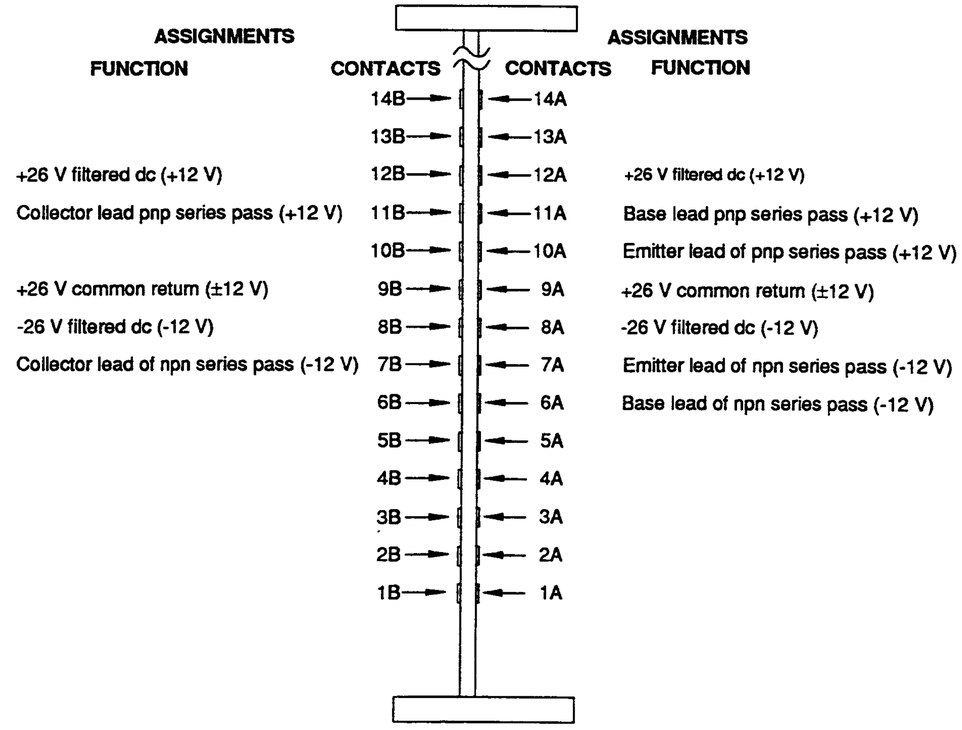
Power connections used on the PS INTERFACE board (A5A2) as viewed from the rear of the plug-in. Only those connections used in the CG 5010/CG 5011 are shown. Information in parenthesis is the CG 5010/ CG 5011 voltage supplies associated with each connection.

1. Two dc-dc converters (derived from the +26 V source) provide the following internal supply voltages:
 High Voltages: -120 V, +120 V, +240 V.
 Low Voltages: -25 V, -15 V, +15 V, +25 V.

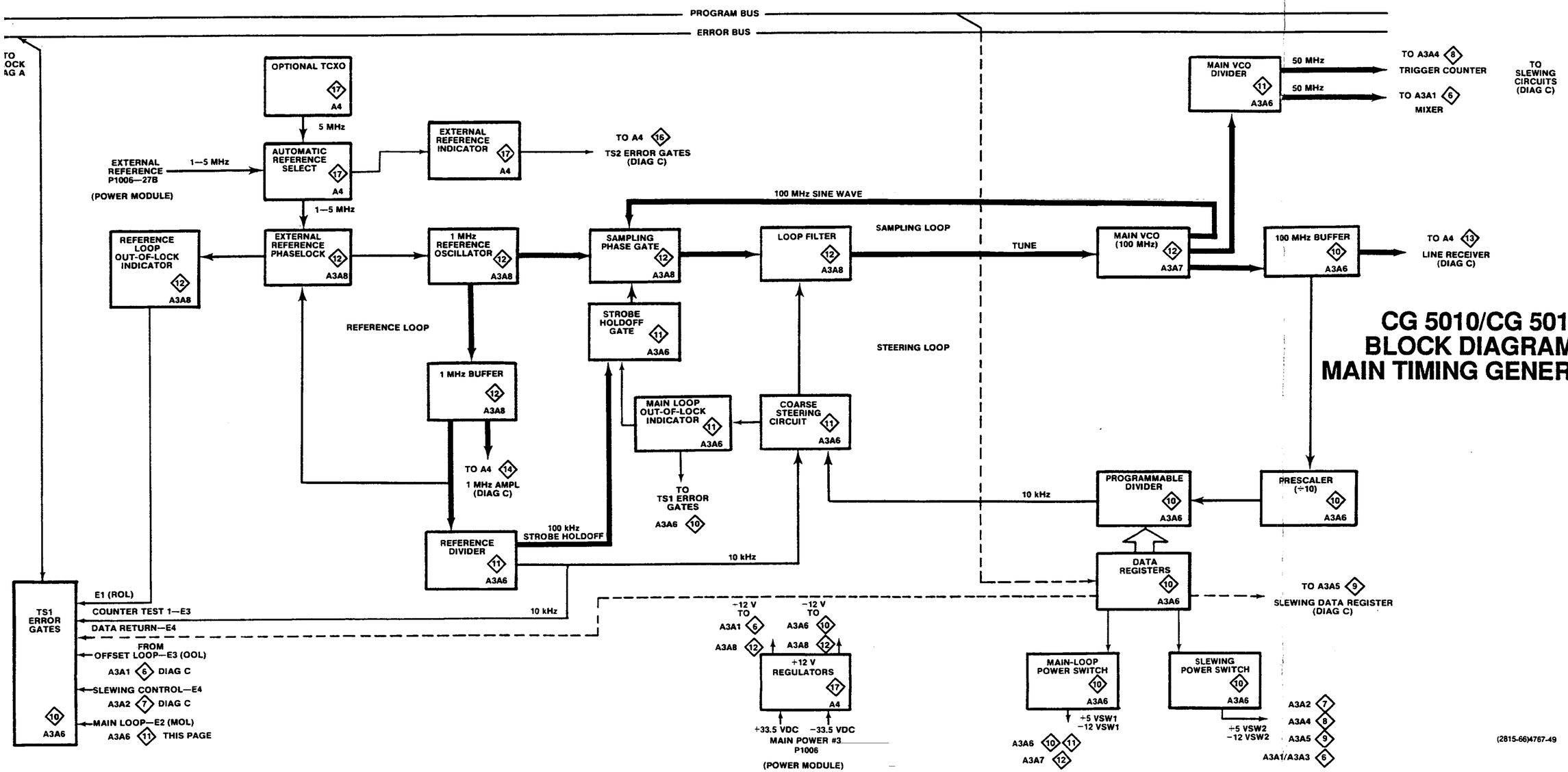
2. CG 5011 Only:
 +21, +15 Volts for advanced time marks

3. The npn series pass transistor (located in the mainframe) is associated with the voltages supplied by the +8 V filtered dc source (2A-4B).

Table 9-2
POWER CONNECTIONS
(REAR INTERFACE)
TIME MARK BOARD
A4
P1006



Power connections used on the TIME MARKS interface board (A4) as viewed from the rear of the plug-in. Only those connections used in the CG 5010/CG 5011 are shown. Information in parenthesis is the CG 5010/ CG 5011 voltage supplies associated with each connection.

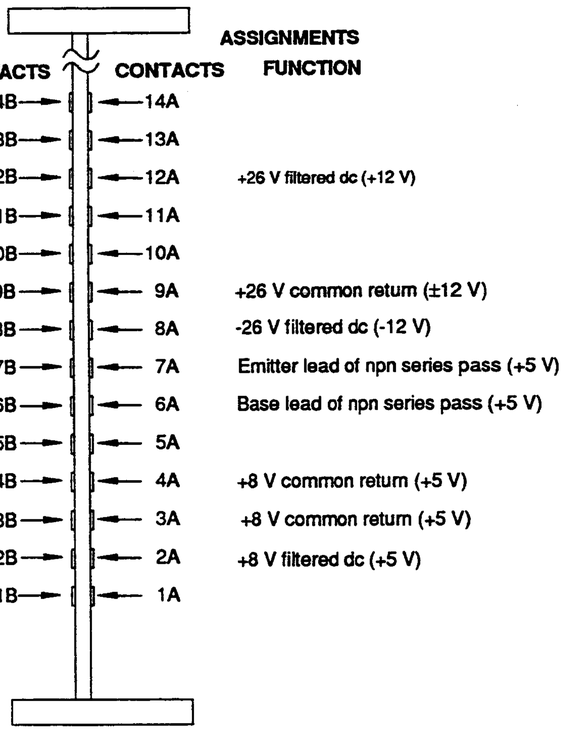


CG 5010/CG 5011 BLOCK DIAGRAM B MAIN TIMING GENERATOR

BLOCK DIAGRAM B
MAIN TIMING GENERATOR

Table 9-3
POWER CONNECTIONS
(REAR INTERFACE)

CPU BOARD
A9
P1001

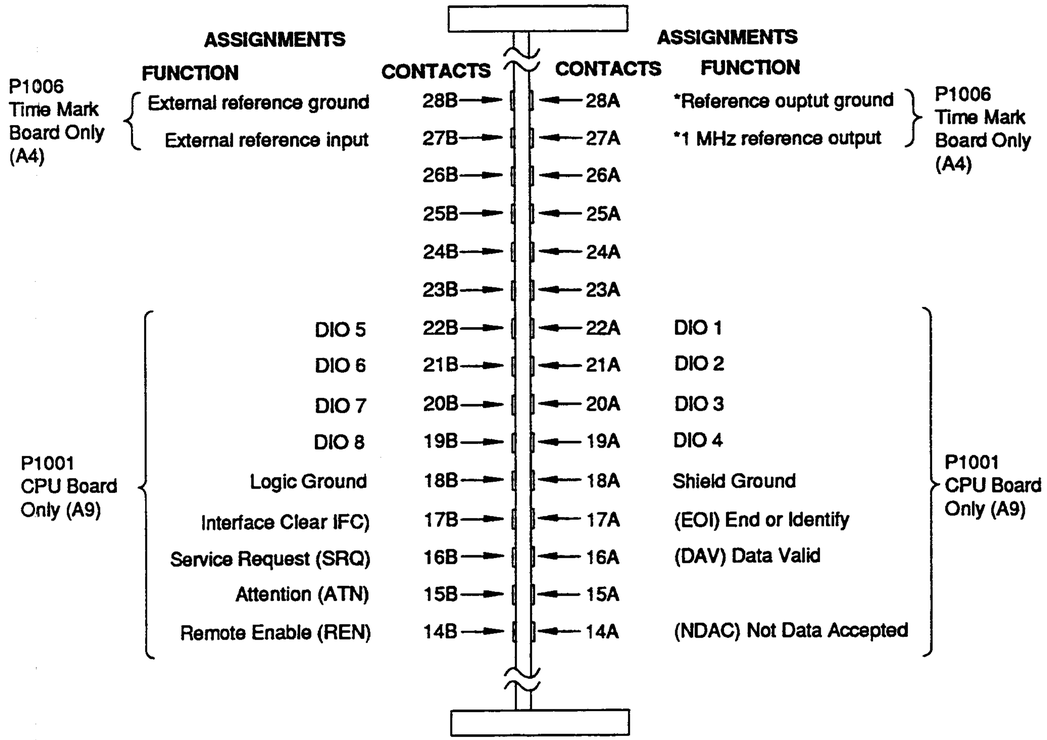


Power connections used on the CPU interface board (A9) as viewed from the rear of the plug-in. Only those connections used in the CG 5010/CG 5011 are shown. Information in parenthesis is the CG 5010/ CG 5011 voltage supplies associated with each connection.

Table 9-4
GPIB/TIME REFERENCE SIGNALS
(REAR INTERFACE)

TIME MARK BOARD
A4
P1006

CPU BOARD
A9
P1001



Input/output connections for time reference signals are located on the TIME MARK board (A4)

* Customer installed jumper

CG 5010 ONLY BLOCK DIAGRAM C SLEWED EDGE, TIME MARK AND TRIGGER GENERATORS

TO BLOCK DIAG A

PROGRAM BUS

ERROR BUS

50 MHz

FROM MAIN VCO DIVIDER A3A6 11 (DIAG B)

f_A 50 MHz

MIXER 6 A3A1

48.780 MHz
49.0196 MHz

1.22 MHz
1.02 MHz

TRIGGER COUNTER 8 A3A4

TRIGGER GENERATOR 8 A3A4

TO TRIGGER AMPLIFIER A4 15

TRIGGER DATA REGISTER 8 A3A4

SLEWING CONTROL 7 A3A2

OFFSET SELECT

SYNC

DATA RETURN

TO TS1 ERROR GATES A3A6 10 (DIAG B)

TO TS1 ERROR GATES A3A6 10 (DIAG B)

OFFSET LOOP OUT OF LOCK INDICATOR 6 A3A1

OFFSET LOOP PHASE DETECTOR 6 A3A1

OFFSET LOOP

ACQUISITION CIRCUIT 6 A3A1

OFFSET DIVIDER (÷40 OR 50) 6 A3A1

SLEWING DATA REGISTER 9 A3A5

FROM DATA REGISTER A3A6 10 (DIAG B)

OFFSET LOOP FILTER 6 A3A1

TUNE

OFFSET VCO 6 A3A3

f_B

48.780 MHz = 0.5 ns
49.0196 MHz = 0.4 ns
} OFFSET

SLEWING COUNTER 9 A3A5

SLEWED EDGE GENERATOR 9 A3A5

FROM 100 MHz BUFFER A3A6 10 (DIAG B)

LINE RECEIVER 13 A4

10 ns. ±%

FAST MARKER DIVIDER 13 A4

10-20-50-100-200-500 ns. ±%

FAST MARKER SHAPER 13 A4

MARKER AMPLIFIER 13 A4

TO OUTPUT SWITCHING A7 25 (DIAG D)

MKR GATE

SYNC GATES 13 A4

MKR BOOST GATE

FROM 1 MHz BUFFER A3A8 12 (DIAG B)

1 MHz REFERENCE OUT P1006—27A

DIVIDE BY 10 13 A4

100 ns, ±%

FAST TRIGGER GENERATOR 13 A4

100 ns
200 ns
500 ns

TRIGGER DIVIDER 15 A4

1 MHz AMPL 14 A4

1 μs

COUNT DOWN CIRCUIT 14 A4

1 μs—5 s, ±%

SLOW MARKER SHAPER 15 A4

MARKER DATA REGISTER 16 A4

CHOP AMPL 16 A4

TO CHOP ISOLATOR A7 23 (DIAG D)

TRIG DRIVE

TRIGGER AMPLIFIER 15 A4

TRIGGER OUT TO FRONT PANEL BNC 1

FROM EXTERNAL REFERENCE INDICATOR A4 17 (DIAG B)

DATA RETURN

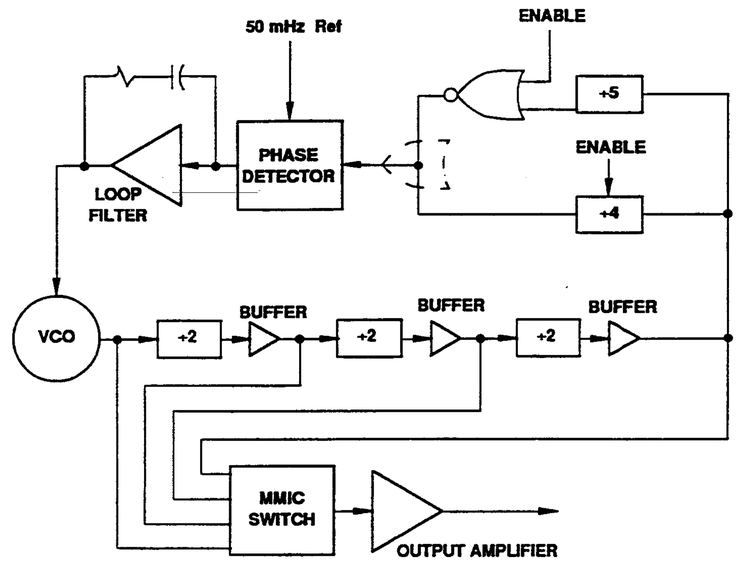
TS2 ERROR GATES 16 A4

E1, E3, E4

A3A4 8 FROM TRIGGER GENERATOR

BLOCK DIAGRAM C SLEWED EDGE/ TIME MARKS/TRIGGER GENERATORS

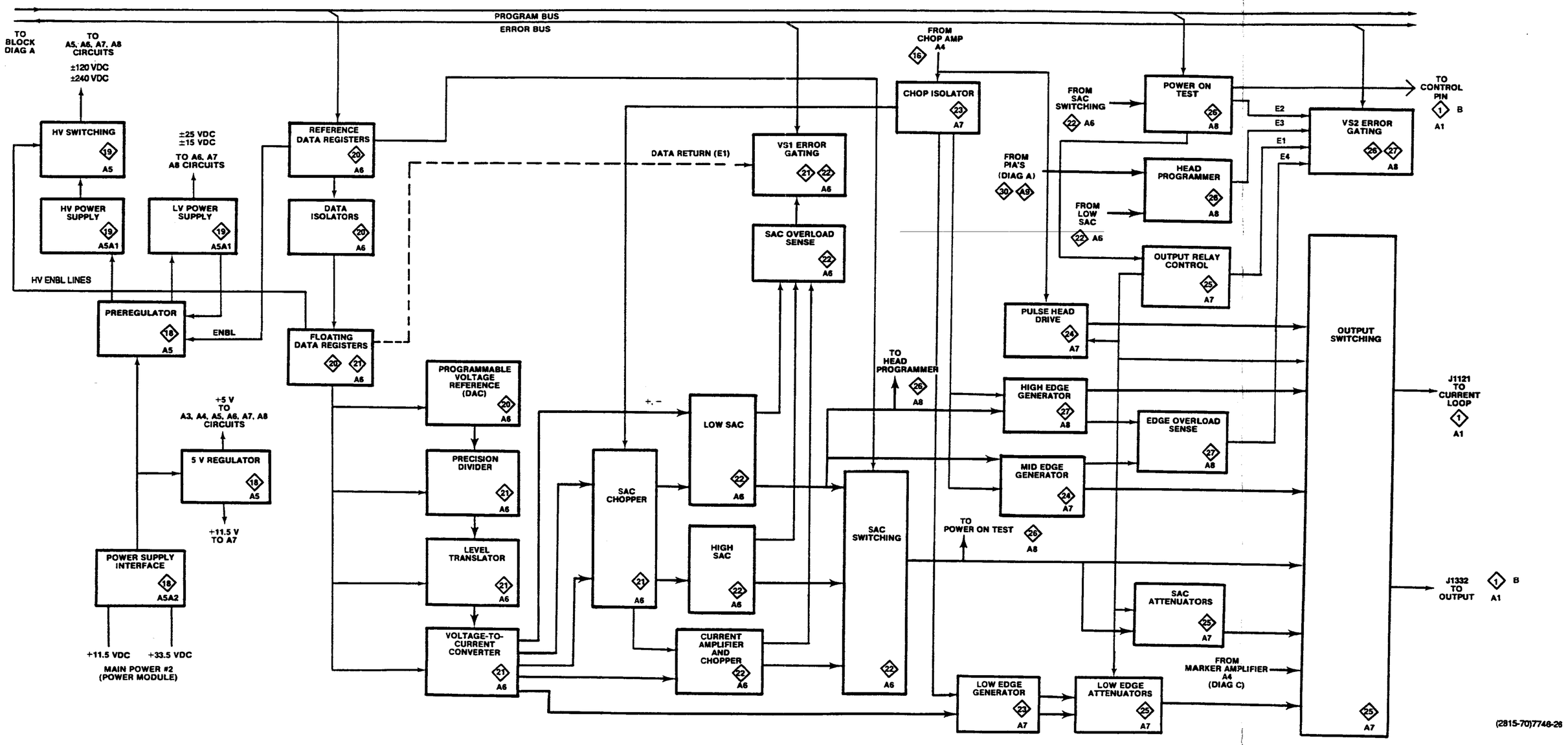
CG 5011 ONLY
ADVANCED TIMING LOOP (BLOCK DIAGRAM D)



7746-6

BLOCK DIAGRAM D
ADVANCED TIMING LOOP

CG 5010/CG 5011 BLOCK DIAGRAM E STANDARD AMPLITUDE CALIBRATOR



(2815-70)7748-26

BLOCK DIAGRAM E STANDARD AMPLITUDE CALIBRATOR

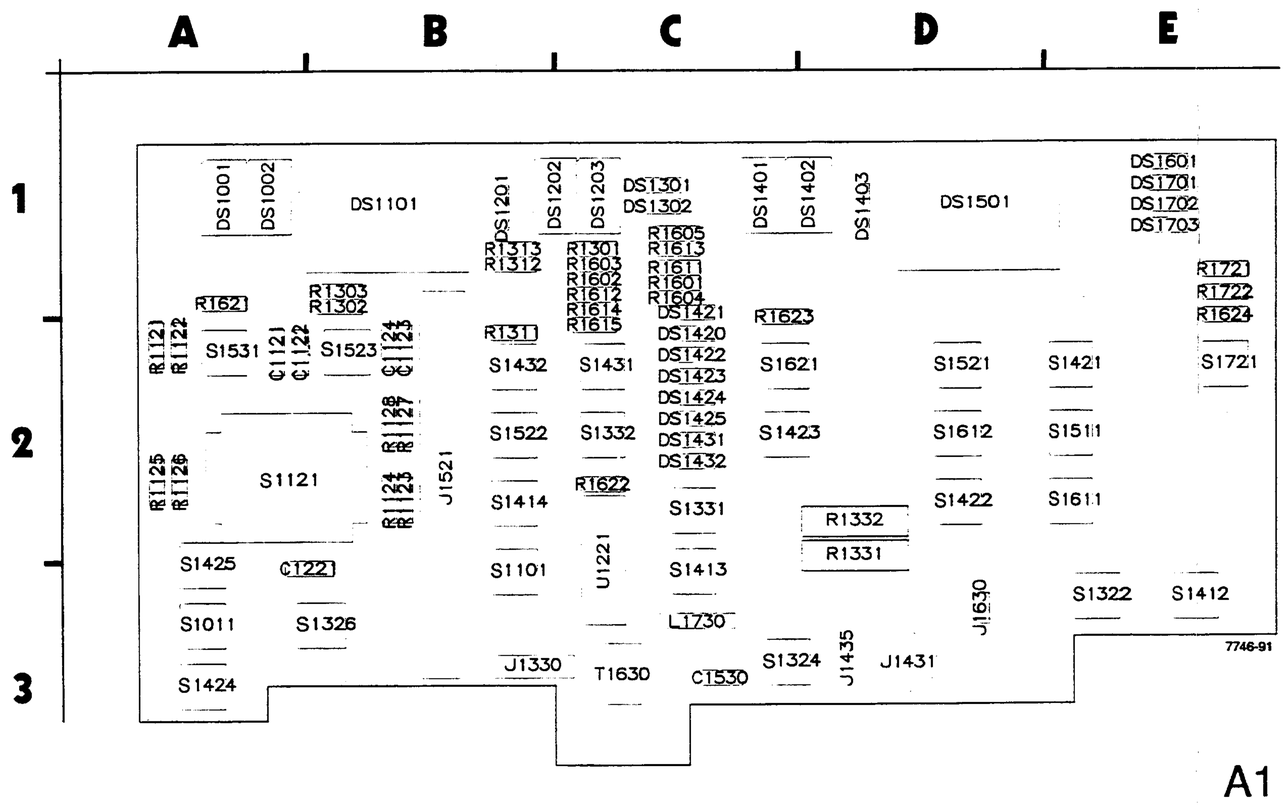


Fig. 9-41. Front Panel Board (A1).

SEE
OTHER
SIDE

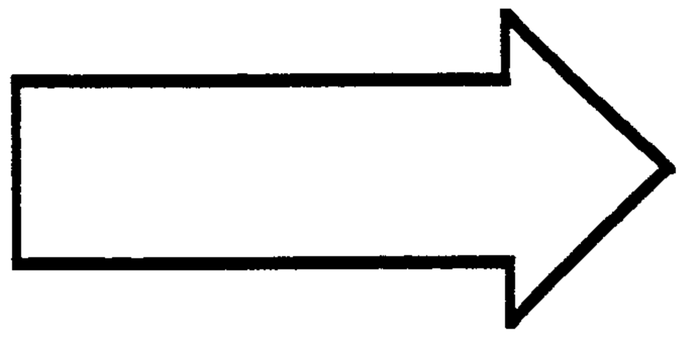
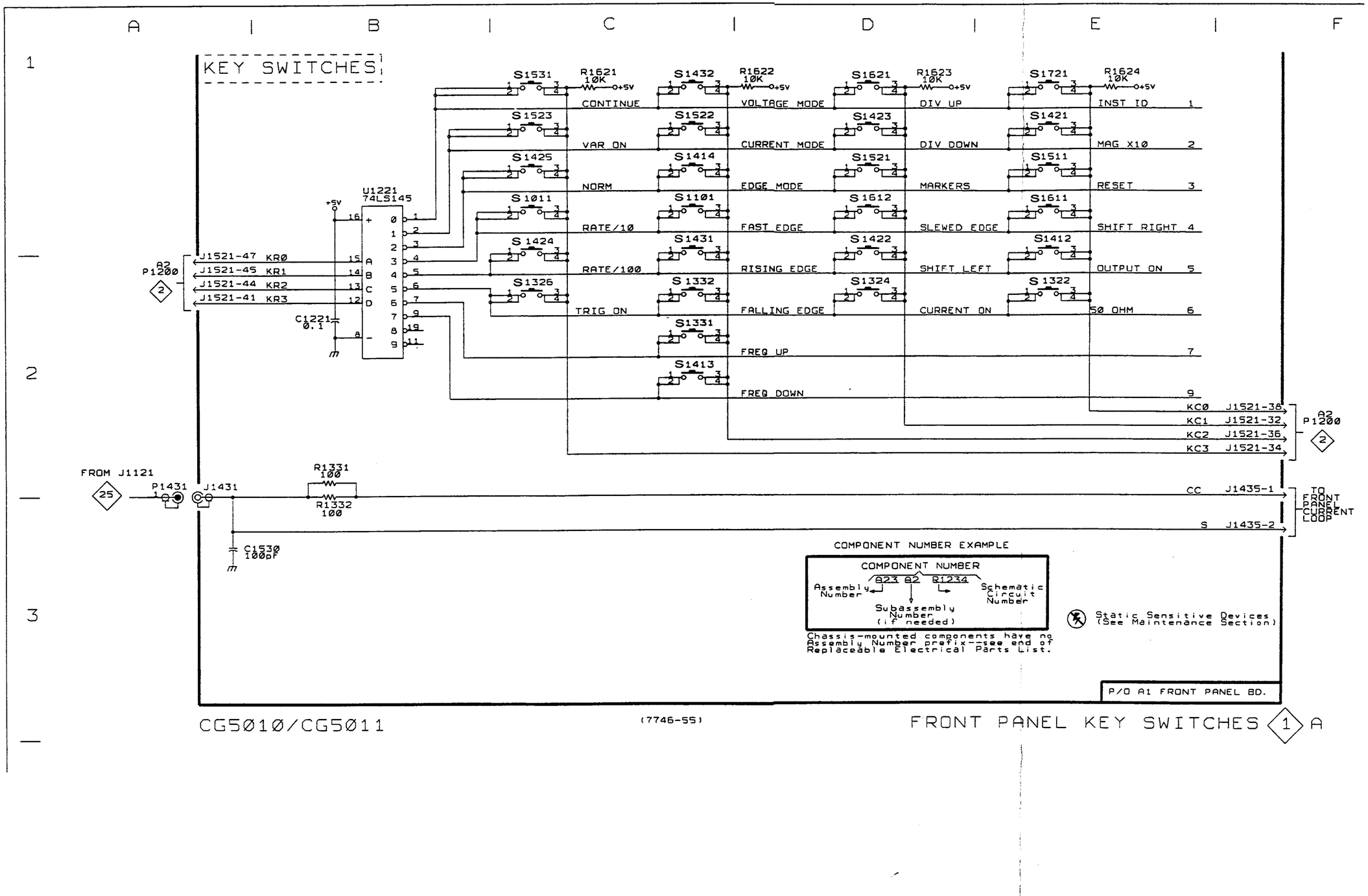


Table 9-4A

FRONT PANEL KEY SWITCHES (1A) — FRONT PANEL BOARD, ASSEMBLY A1

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C1221	B2	B3	S1332	C2	C2
C1530	A3	C3	S1412	E1	E3
			S1413	C2	C3
J1431	A2	D3	S1414	C1	B2
J1435	A2,F3	D3	S1421	E1	E2
J1521	F2	B2	S1422	D1	D2
			S1423	D1	C2
P1431	A2	CH	S1424	C1	A3
			S1425	C1	A3
R1331	B2	D2	S1431	C1	C2
R1332	B3	D2	S1432	C1	B2
R1621	C1	A1	S1511	E1	E2
R1622	D1	C2	S1521	D1	D2
R1623	D1	C2	S1522	C1	B2
R1624	E1	E1	S1523	C1	B2
			S1531	C1	A2
S1011	C1	A3	S1611	E1	E2
S1101	C1	B3	S1612	D1	D2
S1322	E2	E3	S1621	D1	C2
S1324	D2	C3	S1721	E1	E2
S1326	C2	B3			
S1331	C2	C2	U1221	B1	C3


KEY SWITCHES
S1531
R1621 10K
+5V
CONTINUE
S1432
R1622 10K
VOLTAGE MODE
S1621
R1623 10K
DIV UP
S1721
R1624 10K
INST ID 1
S1523
VAR ON
S1522
CURRENT MODE
S1423
DIV DOWN
S1421
MAG X10 2
S1425
NORM
S1414
EDGE MODE
S1521
MARKERS
S1511
RESET 3
S1011
RATE/10
S1101
FAST EDGE
S1612
SLEWED EDGE
S1611
SHIFT RIGHT 4
S1424
RATE/100
S1431
RISING EDGE
S1422
SHIFT LEFT
S1412
OUTPUT ON 5
S1326
TRIG ON
S1332
FALLING EDGE
S1324
CURRENT ON
S1322
50 OHM 6
S1331
FREQ UP 7
S1413
FREQ DOWN 9
U1221
74LS145
C1221
0.1
A2
P1200
J1521-47 KR0
J1521-45 KR1
J1521-44 KR2
J1521-41 KR3
KC0 J1521-38
KC1 J1521-32
KC2 J1521-36
KC3 J1521-34
FROM J1121
25
P1431
J1431
R1331 100
R1332 100
C1530 100pF
CC J1435-1
S J1435-2
TO FRONT PANEL CURRENT LOOP
COMPONENT NUMBER EXAMPLE
COMPONENT NUMBER
A23 A2 R1234
Assembly Number
Subassembly Number (if needed)
Schematic Circuit Number
Chassis-mounted components have no Assembly Number prefix-see end of Replaceable Electrical Parts List.
Static Sensitive Devices (See Maintenance Section)
P/O A1 FRONT PANEL BD.
CG5010/CG5011
(7746-55)
FRONT PANEL KEY SWITCHES 1 A

SEE
OTHER
SIDE

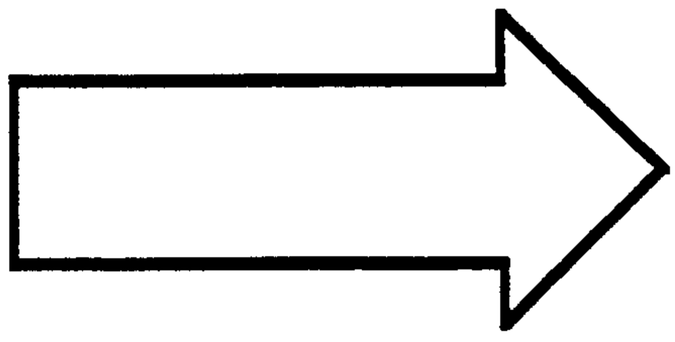
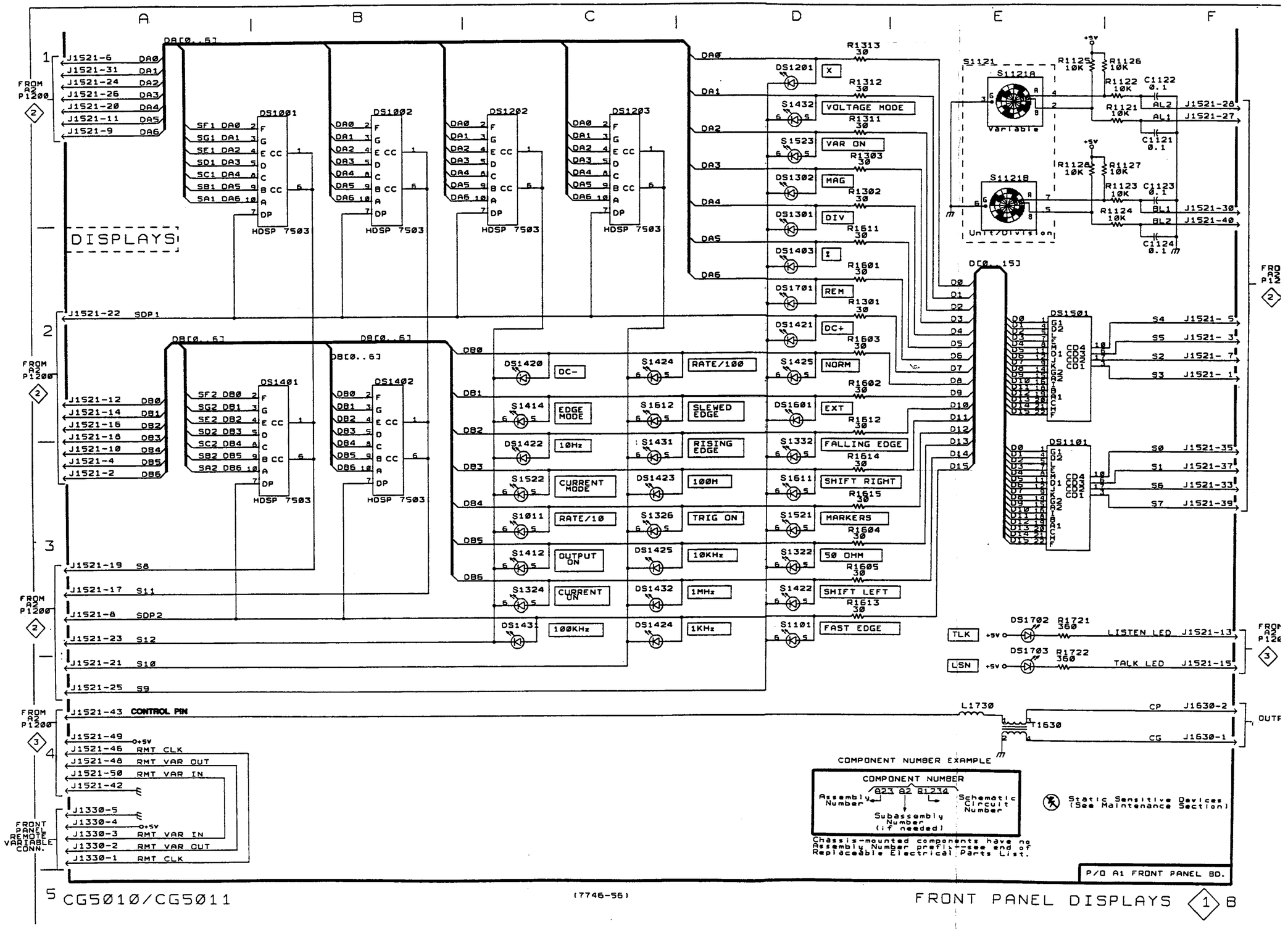
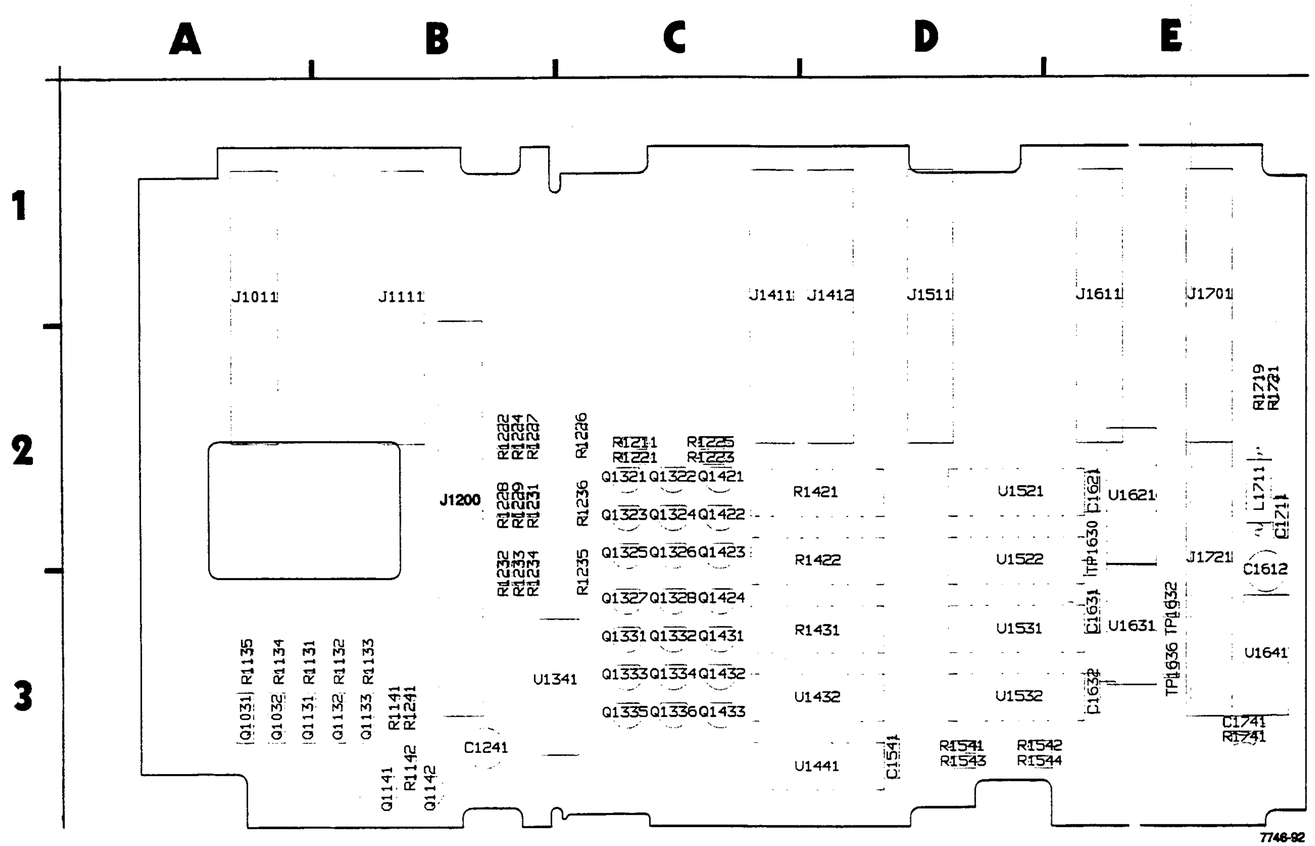


Table 9-4B

FRONT PANEL DISPLAYS (1B) — FRONT PANEL BOARD, ASSEMBLY A1

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C1121	F1	A2
C1122	F1	A2
C1123	F1	B2
C1124	F2	B2
DS1001	A1	A1
DS1002	B1	A1
DS1101	E3	B1
DS1201	D1	B1
DS1202	C1	B1
DS1203	C1	C1
DS1301	D1	C1
DS1302	D1	C1
DS1401	A2	C1
DS1402	B2	D1
DS1403	D2	D1
DS1420	C2	C2
DS1421	D2	C1
DS1422	C3	C2
DS1423	C3	C2
DS1424	C3	C2
DS1425	C3	C2
DS1431	C3	C2
DS1432	C3	C2
DS1501	E2	D1
DS1601	D2	E1
DS1701	D2	E1
DS1702	E3	E1
DS1703	E4	E1
J1330	A4	B3
J1521	A1-A4,F1-F4	B2
J1630	F4	D3
L1730	E4	C3
R1121	F1	A2
R1122	F1	A2
R1123	F1	B2
R1124	F1	B2
R1125	E1	A2
R1126	F1	A2
R1127	F1	B2
R1128	E1	B2
R1301	D2	C1
R1302	D1	B1
R1303	D1	B1
R1311	D1	B2
R1312	D1	B1
R1313	D1	B1
R1601	D2	C1
R1602	D2	C1
R1603	D2	C1
R1604	D3	C1
R1605	D3	C1
R1611	D2	C1
R1612	D2	C1
R1613	D3	C1
R1614	D3	C1
R1615	D3	C2
R1721	E3	E1
R1722	E4	E1
S1011	C3	A3
S1101	D3	B3
S1121A	E1	A2
S1121B	E1	A2
S1322	D3	E3
S1324	C3	C3
S1326	C3	B3
S1332	D3	C2
S1412	C3	E3
S1414	C2	B2
S1422	D3	D2
S1424	C2	A3
S1425	D2	A3
S1431	C3	C2
S1432	D1	B2
S1521	D3	D2
S1522	C3	B2
S1523	D1	B2
S1611	D3	E2
S1612	C2	D2
T1630	E4	C3


DISPLAYS
DA[0..6]
DB[0..6]
J1521-6 DA0
J1521-31 DA1
J1521-24 DA2
J1521-26 DA3
J1521-20 DA4
J1521-11 DA5
J1521-9 DA6
FROM A2 P1200
DS1001
DS1002
DS1202
DS1203
HDSP 7503
J1521-22 SDP1
J1521-12 DB0
J1521-14 DB1
J1521-16 DB2
J1521-18 DB3
J1521-10 DB4
J1521-4 DB5
J1521-2 DB6
DS1401
DS1402
J1521-19 S8
J1521-17 S11
J1521-8 SDP2
J1521-23 S12
J1521-21 S10
J1521-25 S9
J1521-43 CONTROL PIN
J1521-49 0+5V
J1521-46 RMT CLK
J1521-48 RMT VAR OUT
J1521-50 RMT VAR IN
J1521-42
J1330-5
J1330-4 0+5V
J1330-3 RMT VAR IN
J1330-2 RMT VAR OUT
J1330-1 RMT CLK
FRONT PANEL REMOTE VARIABLE CONN.
DB0
DB1
DB2
DB3
DB4
DB5
DB6
DS1420 DC-
DS1422 10Hz
DS1414 EDGE MODE
S1522 CURRENT MODE
S1011 RATE/10
S1412 OUTPUT ON
S1324 CURRENT ON
DS1431 100KHz
S1424 RATE/100
S1612 SLEWED EDGE
S1431 RISING EDGE
DS1423 100H
S1326 TRIG ON
DS1425 10KHz
DS1432 1MHz
DS1424 1KHz
DA0
DA1
DA2
DA3
DA4
DA5
DA6
R1313 30
R1312 30
R1311 30
R1303 30
R1302 30
R1611 30
R1601 30
R1301 30
R1603 30
R1602 30
R1612 30
R1614 30
R1615 30
R1604 30
R1605 30
R1613 30
DS1201 X
S1432 VOLTAGE MODE
S1523 VAR ON
DS1302 MAG
DS1301 DIV
DS1403 I
DS1701 REM
DS1421 DC+
S1425 NORM
DS1601 EXT
S1332 FALLING EDGE
S1611 SHIFT RIGHT
S1521 MARKERS
S1322 50 OHM
S1422 SHIFT LEFT
S1101 FAST EDGE
S1121
S1121A
S1121B
Variable
Unit/Division
+5V
R1125 10K
R1126 10K
R1122 10K
R1121 10K
C1122 0.1
C1121 0.1
AL2
AL1
J1521-28
J1521-27
R1128 10K
R1127 10K
R1123 10K
R1124 10K
C1123 0.1
C1124 0.1
BL1
BL2
J1521-30
J1521-40
D0..15
DS1501
DS1101
S4 J1521- 5
S5 J1521- 3
S2 J1521- 7
S3 J1521- 1
S0 J1521-35
S1 J1521-37
S6 J1521-33
S7 J1521-39
TLK
LSN
DS1702 R1721 360
DS1703 R1722 360
LISTEN LED J1521-13
TALK LED J1521-15
L1730
T1630
CP J1630-2
CG J1630-1
COMPONENT NUMBER EXAMPLE
COMPONENT NUMBER
A23 A2 A1234
Assembly Number
Subassembly Number (if needed)
Schematic Circuit Number
Chassis-mounted components have no Assembly Number prefix--see end of Replaceable Electrical Parts List.
Static Sensitive Devices (See Maintenance Section)
P/O A1 FRONT PANEL BD.
CG5010/CG5011
(7746-56)
FRONT PANEL DISPLAYS
1 B



A2

Fig. 9-42. Main Interconnect Board (A2).

SEE
OTHER
SIDE

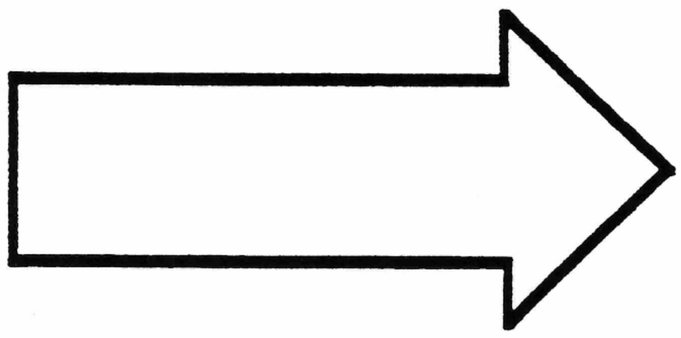
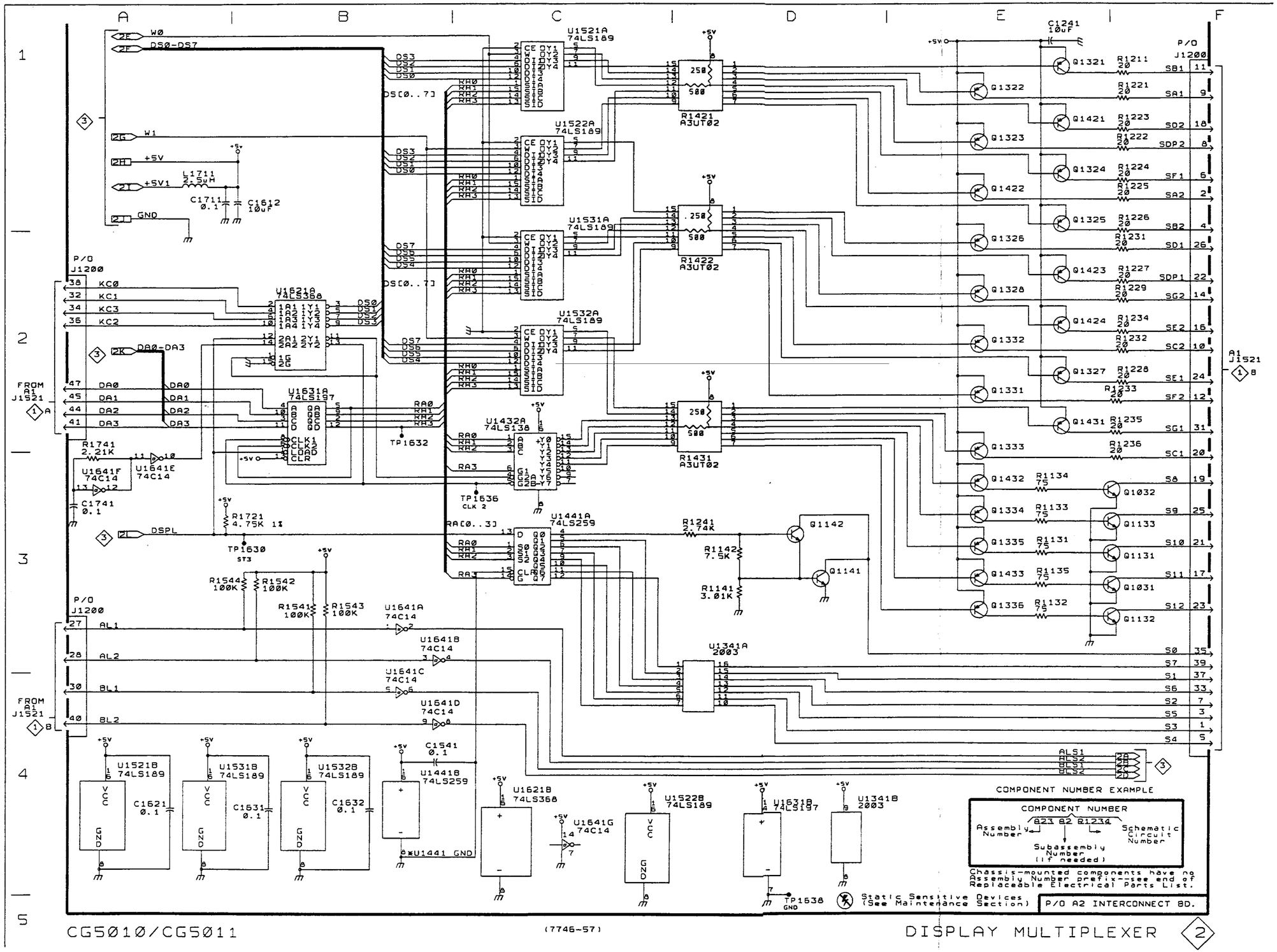


Table 9-4C

DISPLAY MULTIPLEXER ◇2◇ — MAIN INTERCONNECT BOARD, ASSEMBLY A2

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C1241	E 1	B 3
C1541	C 4	D 3
C1612	B 1	E 3
C1621	A 4	E 2
C1631	B 4	E 3
C1632	B 4	E 3
C1711	A 1	E 2
C1741	A 3	E 3
J1200	A 2,A 3,F 1	CHASSIS
L1711	A 1	E 2
Q1031	F 3	A 3
Q1032	F 3	A 3
Q1131	F 3	A 3
Q1132	F 3	B 3
Q1133	F 3	B 3
Q1141	D 3	B 3
Q1142	D 3	B 3
Q1321	E 1	C 2
Q1322	E 1	C 2
Q1323	E 1	C 2
Q1324	E 1	C 2
Q1325	E 1	C 2
Q1326	E 2	C 2
Q1327	E 2	C 3
Q1328	E 2	C 3
Q1331	E 2	C 3
Q1332	E 2	C 3
Q1333	E 2	C 3
Q1334	E 3	C 3
Q1335	E 3	C 3
Q1336	E 3	C 3
Q1421	E 1	C 2
Q1422	E 1	C 2
Q1423	E 2	C 2
Q1424	E 2	C 3
Q1431	E 2	C 3
Q1432	E 3	C 3
Q1433	E 3	C 3
R1131	E 3	A 3
R1132	E 3	B 3
R1133	E 3	B 3
R1134	E 3	A 3
R1135	E 3	A 3
R1141	D 3	B 3
R1142	D 3	B 3
R1211	F 1	C 2
R1221	F 1	C 2
R1222	F 1	B 2
R1223	F 1	C 2
R1224	F 1	B 2
R1225	F 1	C 2
R1226	F 1	C 2
R1227	F 2	B 2
R1228	F 2	B 2
R1229	F 2	B 2
R1231	F 2	B 2
R1232	F 2	B 3
R1233	F 2	B 3
R1234	F 2	B 3
R1235	F 2	C 3
R1236	F 2	C 2
R1241	D 3	B 3
R1421	D 1	D 2
R1422	D 2	D 2
R1431	D 3	D 3
R1541	B 3	D 3
R1542	B 3	D 3
R1543	B 3	D 3
R1544	B 3	D 3
R1721	A 3	E 2
R1741	A 2	E 3
TP1630	A 3	E 2
TP1632	B 2	E 3
TP1636	C 3	E 3
U1341A	D 3	B 3
U1341B	D 4	B 3
U1432A	C 2	D 3
U1432B	E 4	D 3
U1441A	C 3	D 3
U1441B	B 1	D 3
U1521A	C 1	D 2
U1521B	A 4	D 2
U1522A	C 1	D 2
U1522B	D 4	D 2
U1531A	C 1	D 3
U1531B	A 4	D 3
U1532A	C 2	D 3
U1532B	B 4	D 3
U1621A	B 2	E 2
U1621B	D 4	E 2
U1631A	B 2	E 3
U1631B	C 4	E 3
U1641A	B 3	E 3
U1641B	B 3	E 3
U1641C	B 4	E 3
U1641D	B 4	E 3
U1641E	A 3	E 3
U1641F	A 3	E 3
U1641G	C 4	E 3


W0
DS0-DS7
W1
+5V
+5V1
GND
L1711 2.5uH
C1711 0.1
C1612 10uF
P/O J1200
KC0
KC1
KC3
KC2
DA0-DA3
FROM A1 J1521
DA0
DA1
DA2
DA3
R1741 2.21K
U1641F 74C14
U1641E 74C14
C1741 0.1
R1721 4.75K 1%
DSPL
TP1630 ST3
TP1632
TP1636 CLK 2
U1631A 74LS197
U1521A 74LS368
U1531A 74LS368
U1532A 74LS368
U1441A 74LS259
U1432A 74LS138
U1521A 74LS189
U1522A 74LS189
U1531A 74LS189
U1532A 74LS189
DS[0..7]
RA[0..3]
R1544 100K
R1542 100K
R1541 100K
R1543 100K
U1641A 74C14
U1641B 74C14
U1641C 74C14
U1641D 74C14
AL1
AL2
BL1
BL2
FROM A1 J1521
R1421 A3UT02
R1422 A3UT02
R1431 A3UT02
R1241 2.74K
R1142 7.5K
R1141 3.01K
Q1142
Q1141
U1341A 2003
C1241 10uF
Q1321
Q1322
Q1323
Q1324
Q1325
Q1326
Q1327
Q1328
Q1331
Q1332
Q1333
Q1334
Q1335
Q1336
Q1421
Q1422
Q1423
Q1424
Q1431
Q1432
Q1433
R1211 20
R1221 20
R1223 20
R1222 20
R1224 20
R1225 20
R1226 20
R1231 20
R1227 20
R1229 20
R1234 20
R1232 20
R1228 20
R1233 20
R1235 20
R1236 20
R1134 75
R1133 75
R1131 75
R1135 75
R1132 75
P/O J1200
SB1 11
SA1 9
SD2 10
SDP2 8
SF1 6
SA2 2
SB2 4
SD1 26
SDP1 22
SG2 14
SE2 16
SC2 10
SE1 24
SF2 12
SG1 31
SC1 20
SA 19
SG 25
SD 21
SF 17
SB 23
S0 35
S7 39
S1 37
S6 33
S2 7
S5 3
S3 1
S4 5
TO A1 J1521 B
Q1032
Q1133
Q1131
Q1031
Q1132
U15218 74LS189
U15318 74LS189
U15328 74LS189
U14418 74LS259
U16218 74LS368
U1641G 74C14
U15228 74LS189
U16318 74LS197
U13418 2003
C1621 0.1
C1631 0.1
C1632 0.1
C1541 0.1
U1441 GND
TP1638 GND
Static Sensitive Devices (See Maintenance Section)
COMPONENT NUMBER EXAMPLE
COMPONENT NUMBER
A23 A2 R1234
Assembly Number
Schematic Circuit Number
Subassembly Number (if needed)
Chassis-mounted components have no Assembly Number prefix-see end of Replaceable Electrical Parts List.
P/O A2 INTERCONNECT BD.
CG5010/CG5011
(7746-57)
DISPLAY MULTIPLEXER
2

SEE
OTHER
SIDE

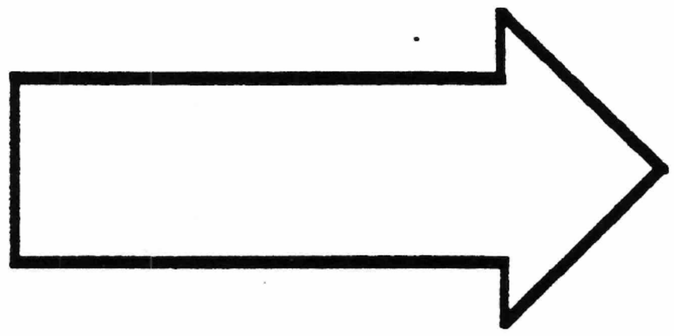
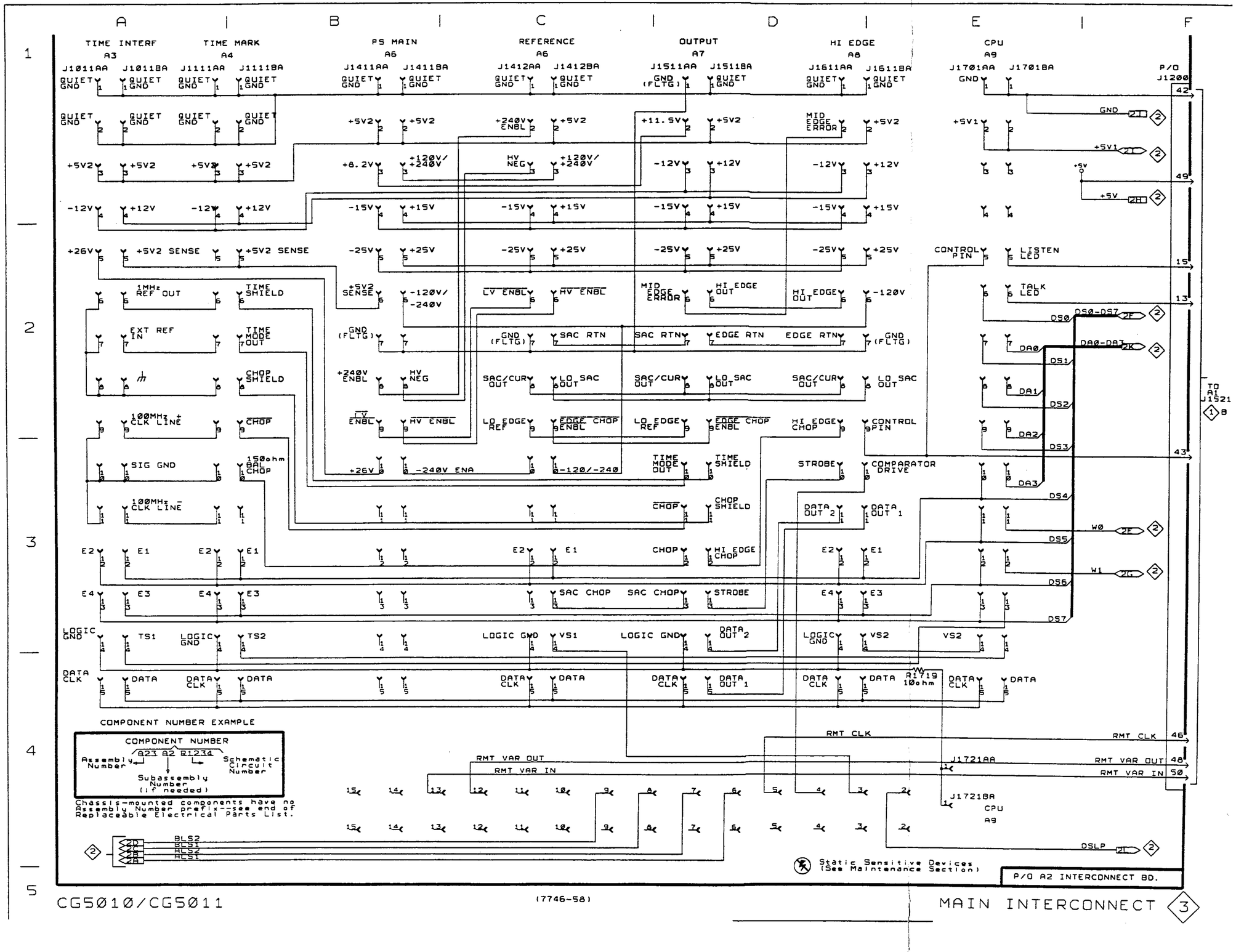


Table 9-4D

MAIN INTERCONNECT 3

— MAIN INTERCONNECT BOARD, ASSEMBLY A2

CIRCUIT NUMBERS	SCHEMATIC LOCATION	BOARD LOCATION
J1011	A 1	A 1
J1111	A 1	B 1
J1200	F 1	B 2
J1411	B 1	C 1
J1412	C 1	D 1
J1511	D 1	D 1
J1611	D 1	E 1
J1701	E 1	E 1
J1721	E 4	E 2
R1719	E 4	E 2



CG5010/CG5011

(7746-58)

MAIN INTERCONNECT 3

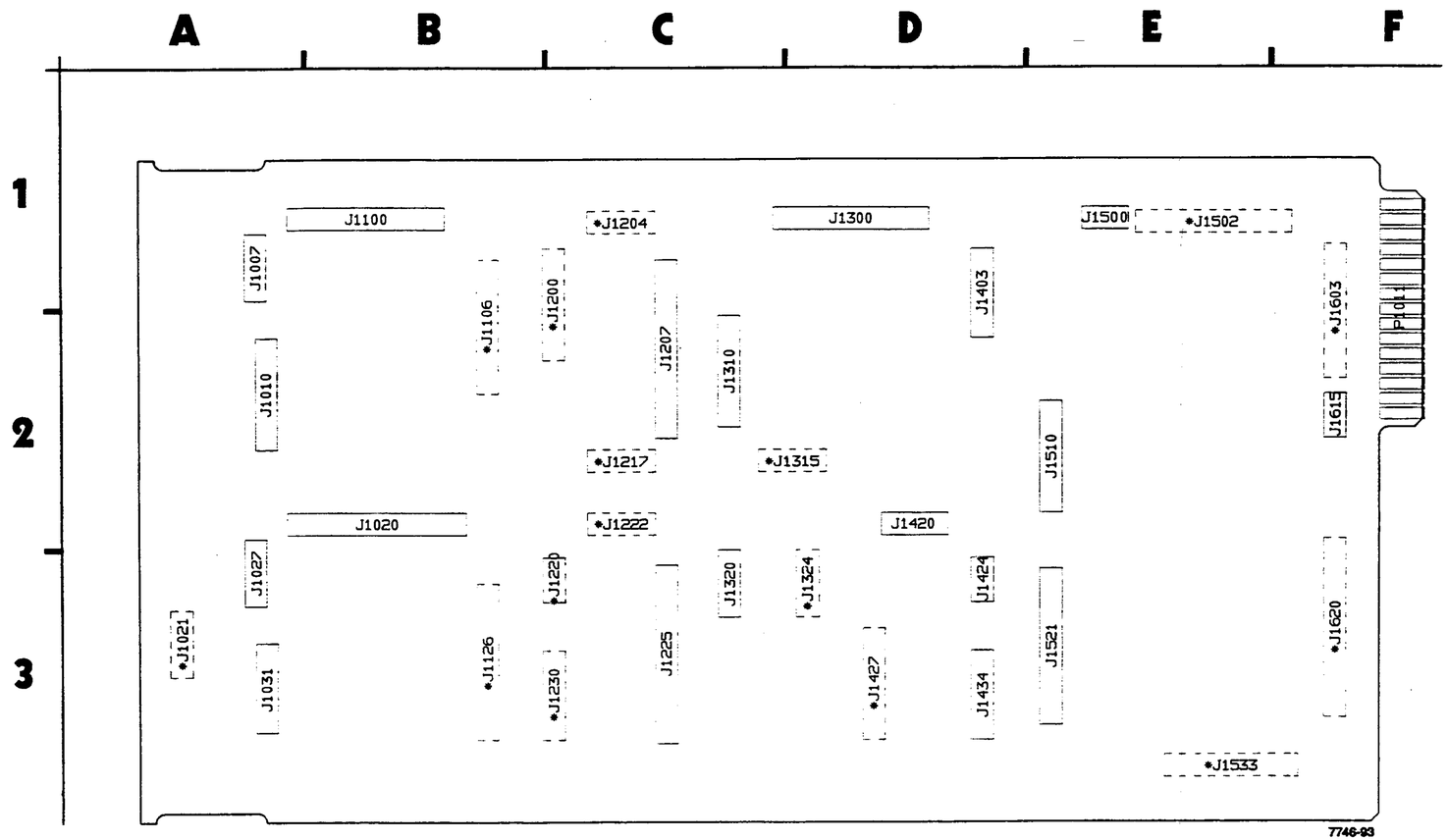


Fig. 9-43. Time Interface Board (A3).

SEE
OTHER
SIDE

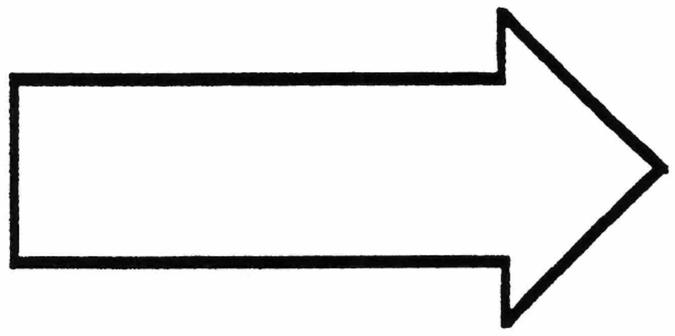
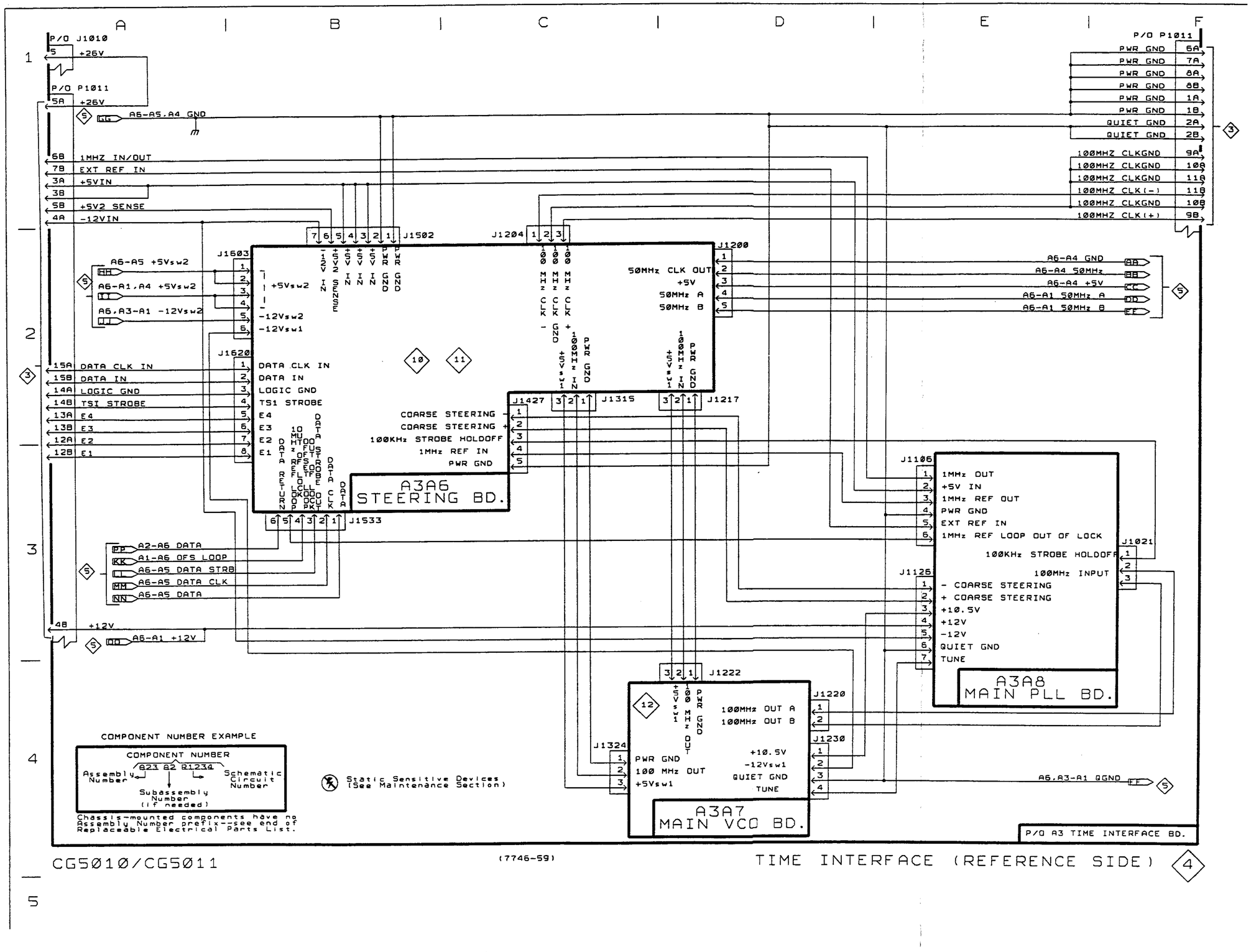


Table 9-5

TIME INTERFACE (REFERENCE SIDE) ◇4

— TIME INTERFACE BOARD, ASSEMBLY A3

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
J1010	A 1	A 2
J1021	F 3	A 3
J1106	E 3	B 2
J1126	E 3	B 3
J1200	D 2	C 1
J1204	C 2	C 1
J1217	D 2	C 2
J1220	D 4	C 3
J1222	D 4	C 2
J1230	D 4	C 3
J1315	C 2	D 2
J1324	C 4	D 3
J1427	C 2	D 3
J1502	B 2	E 1
J1533	B 3	E 3
J1603	B 2	F 2
J1620	B 2	F 3
P1011	A 1,F 1	F 1



CG5010/CG5011 (7746-59) TIME INTERFACE (REFERENCE SIDE) 4

SEE
OTHER
SIDE

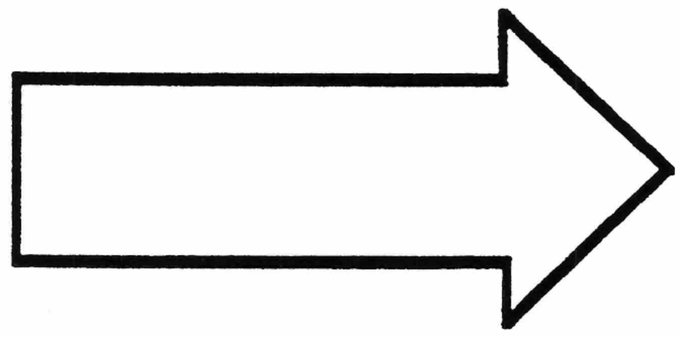
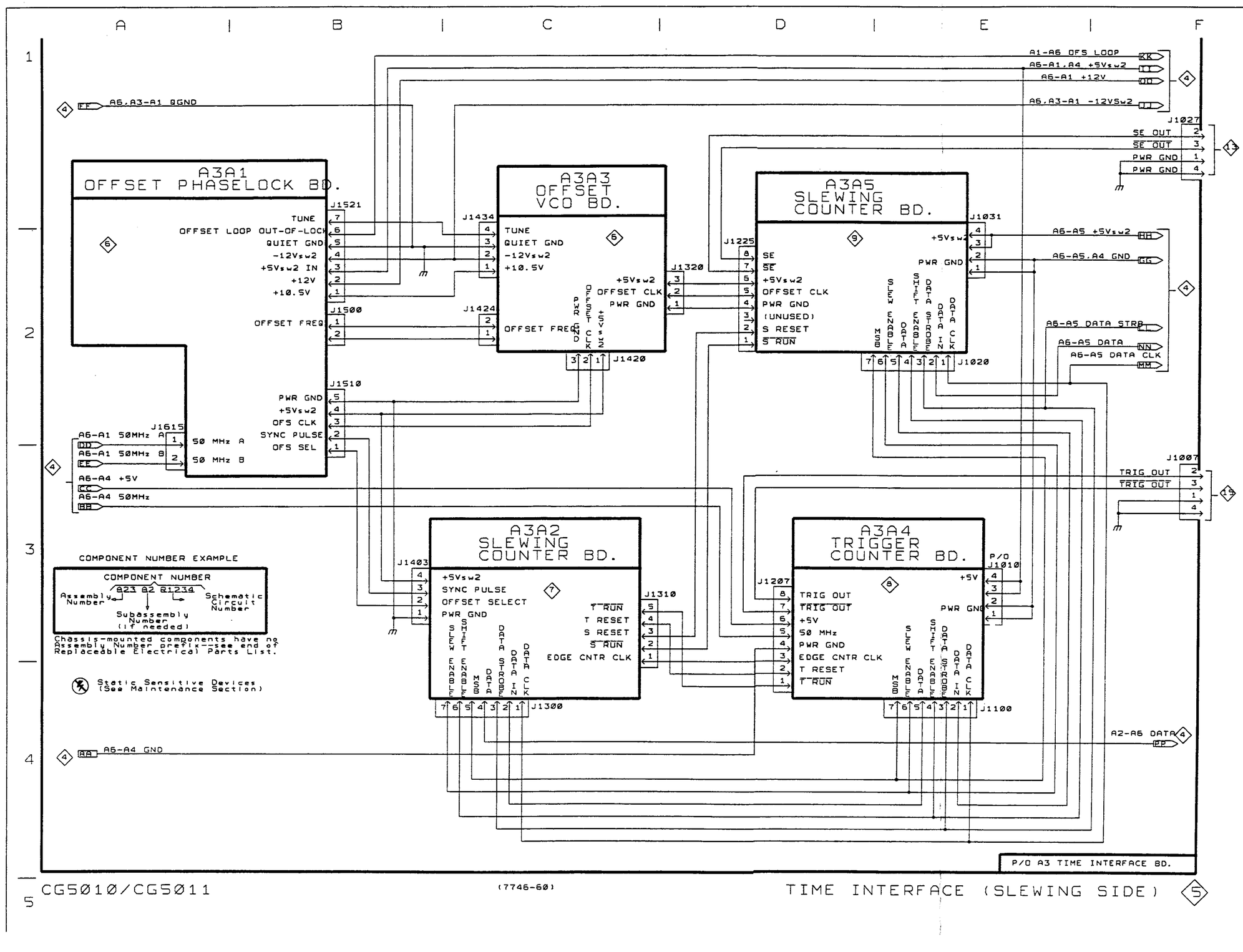


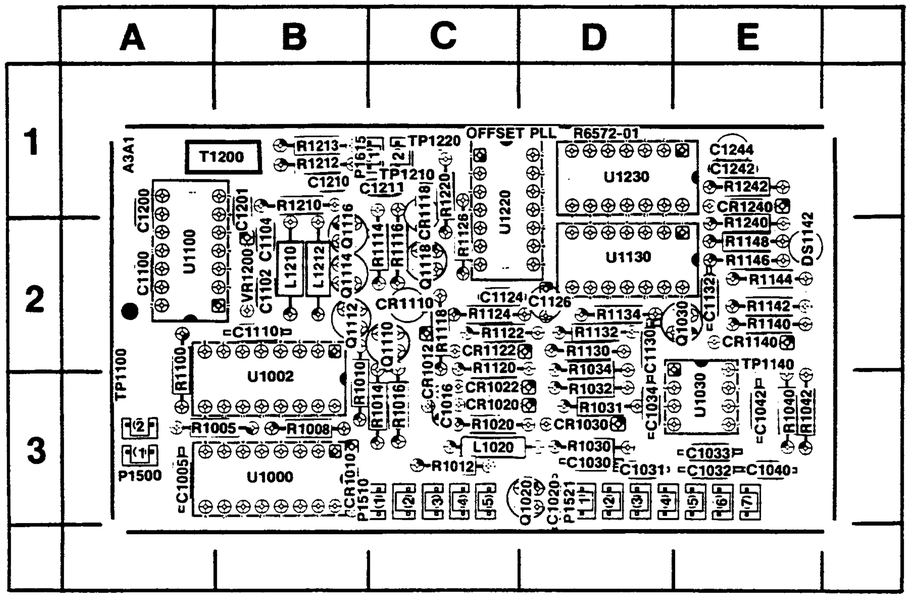
Table 9-6

TIME INTERFACE (SLEWING SIDE) ◇5

— TIME INTERFACE BOARD, ASSEMBLY

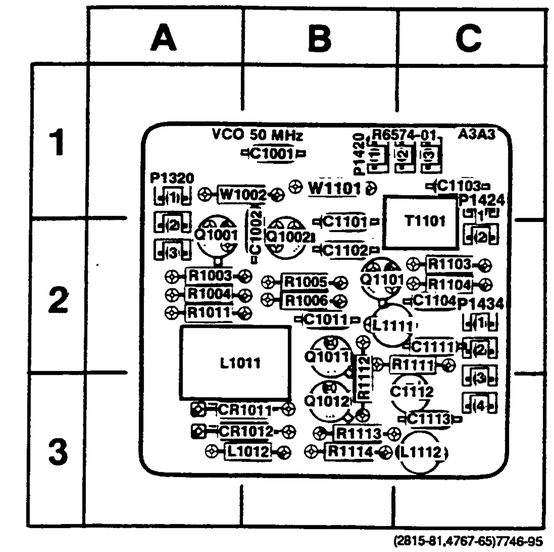
CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
J1007	F 3	A 1
J1010	E 3	A 2
J1020	E 2	B 2
J1027	F 1	A 3
J1031	E 1	A 3
J1100	E 4	B 1
J1207	D 3	C 2
J1225	D 2	C 3
J1300	C 4	D 1
J1310	C 3	C 2
J1320	D 1	C 3
J1403	B 3	D 1
J1420	C 2	D 2
J1424	C 2	D 3
J1434	C 1	D 3
J1500	B 2	E 1
J1510	B 2	E 2
J1521	B 1	E 3
J1615	A 2	F 2


A3A1
OFFSET PHASELOCK BD.
TUNE
OFFSET LOOP OUT-OF-LOCK
QUIET GND
-12Vsw2
+5Vsw2 IN
+12V
+10.5V
OFFSET FREQ
PWR GND
+5Vsw2
OFS CLK
SYNC PULSE
OFS SEL
50 MHz A
50 MHz B
A6-A1 50MHz A
A6-A1 50MHz B
A6-A4 +5V
A6-A4 50MHz
A3A3
OFFSET
VCO BD.
TUNE
QUIET GND
-12Vsw2
+10.5V
+5Vsw2
OFFSET CLK
PWR GND
OFFSET FREQ
A3A5
SLEWING
COUNTER BD.
+5Vsw2
PWR GND
SE
SE
+5Vsw2
OFFSET CLK
PWR GND
(UNUSED)
S RESET
S RUN
A1-A6 OFS LOOP
A6-A1,A4 +5Vsw2
A6-A1 +12V
A6,A3-A1 -12VSw2
SE OUT
SE OUT
PWR GND
PWR GND
A6-A5 +5Vsw2
A6-A5,A4 GND
A6-A5 DATA STRB
A6-A5 DATA
A6-A5 DATA CLK
A3A2
SLEWING
COUNTER BD.
+5Vsw2
SYNC PULSE
OFFSET SELECT
PWR GND
T RUN
T RESET
S RESET
S RUN
EDGE CNTR CLK
A3A4
TRIGGER
COUNTER BD.
+5V
TRIG OUT
TRIG OUT
+5V
50 MHz
PWR GND
EDGE CNTR CLK
T RESET
T RUN
TRIG OUT
TRIG OUT
A6-A4 GND
A2-A6 DATA
COMPONENT NUMBER EXAMPLE
COMPONENT NUMBER
A23 A2 A1234
Assembly Number
Subassembly Number (if needed)
Schematic Circuit Number
Chassis-mounted components have no Assembly Number prefix-see end of Replaceable Electrical Parts List.
Static Sensitive Devices (See Maintenance Section)
P/O A3 TIME INTERFACE BD.
CG5010/CG5011
(7746-60)
TIME INTERFACE (SLEWING SIDE)



(2815-80,4767-64)7746-94

Fig. 9-44. Offfset PLL Board (A3A1).



(2815-81,4767-65)7746-95

Fig. 9-45. Offset VCO Board (A3A3).

Table 9-7A

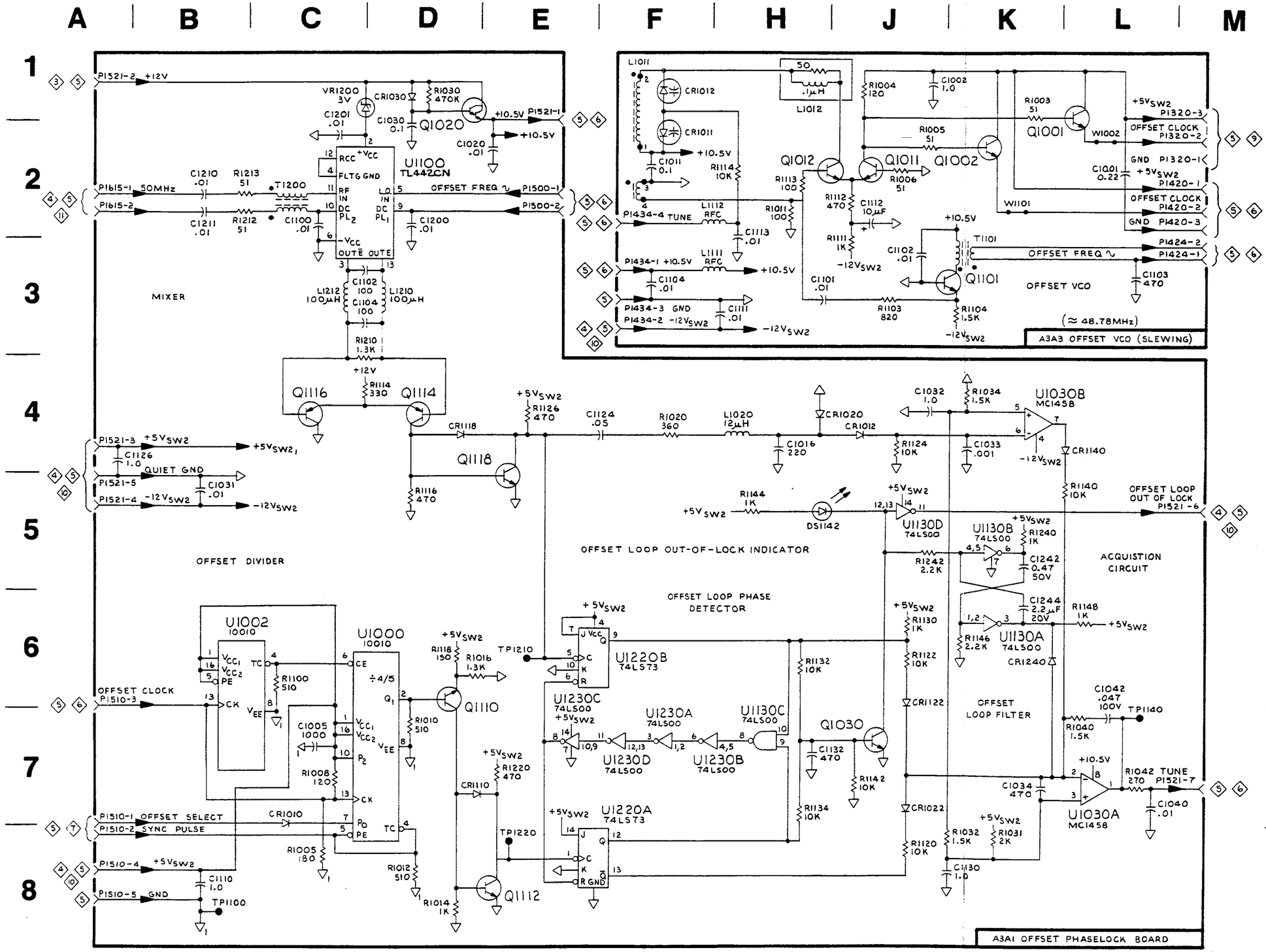
OFFSET LOOP & OFFSET VCO ◇6◇ — OFFSET PLL BOARD, ASSEMBLY A3A1

CIRCUIT NUMBER	LOCATION SCHEMATIC	LOCATION BOARD	CIRCUIT NUMBER	LOCATION SCHEMATIC	LOCATION BOARD	CIRCUIT NUMBER	LOCATION SCHEMATIC	LOCATION BOARD	CIRCUIT NUMBER	LOCATION SCHEMATIC	LOCATION BOARD
C1005	C 7	A 3	CR1030	D 1	D 3	R1010	D 7	B 3	R1213	B 2	B 1
C1016	H 4	C 3	CR1110	D 7	C 2	R1012	D 8	C 3	R1220	E 7	C 1
C1020	E 2	D 3	CR1118	D 4	C 1	R1014	D 8	C 3	R1240	K 5	E 2
C1030	D 1	D 3	CR1122	J 6	C 2	R1016	D 6	C 3	R1242	J 5	E 1
C1031	B 5	D 3	CR1140	L 4	E 3	R1020	F 4	C 3			
C1032	J 4	E 3	CR1240	K 6	E 1	R1030	D 1	D 3	T1200	C 2	B 1
C1033	K 4	E 3				R1031	K 8	D 3			
C1034	K 7	D 3	DS1142	H 5	E 2	R1032	K 8	D 3	TP1100	B 8	A 3
C1040	L 7	E 3				R1034	K 4	D 3	TP1140	L 7	E 3
C1042	L 6	E 3	L1020	H 4	C 3	R1040	L 7	E 3	TP1210	E 6	C 1
C1100	C 2	A 2	L1210	D 3	B 2	R1042	L 7	E 3	TP1220	E 8	C 1
C1102	C 3	B 2	L1212	C 3	B 2	R1100	C 6	A 2			
C1104	C 3	B 2				R1114	D 4	C 2	U1000	D 6	B 3
C1110	B 8	B 2	P1500	E 2	A 3	R1116	D 5	C 2	U1002	B 6	B 3
C1124	E 4	C 2	P1510	A 6,A 7,A 8	B 3	R1118	D 6	C 2	U1030A	L 7	E 3
C1126	A 4	D 2	P1521	A 1,A 4,A 5	D 3	R1120	J 8	C 2	U1030B	K 4	E 3
C1130	K 8	D 2	P1521	M 5,M 7	D 3	R1122	J 6	C 2	U1100	D 2	A 2
C1132	H 7	E 2	P1615	A 2	B 1	R1124	J 4	C 2	U1130A	K 6	D 2
C1200	D 2	A 1				R1126	E 4	C 2	U1130B	K 5	D 2
C1201	C 2	B 1	Q1020	D 1	D 3	R1130	J 6	C 2	U1130C	H 7	D 2
C1210	B 2	B 1	Q1030	J 7	E 2	R1132	H 6	C 2	U1130D	J 5	D 2
C1211	B 2	C 1	Q1110	D 6	C 2	R1134	H 7	D 2	U1220A	F 7	C 1
C1242	K 5	E 1	Q1112	E 8	B 2	R1140	L 5	E 2	U1220B	F 6	C 1
C1244	K 6	E 1	Q1114	D 4	B 2	R1142	J 7	E 2	U1230A	F 7	D 1
			Q1116	C 4	B 2	R1144	H 5	E 2	U1230B	F 7	D 1
CR1010	C 7	B 3	Q1118	D 4	C 2	R1146	K 6	E 2	U1230C	E 7	D 1
CR1012	J 4	C 2				R1148	L 6	E 2	U1230D	F 7	D 1
CR1020	H 4	C 3	R1005	C 8	B 3	R1210	C 3	B 1			
CR1022	J 7	C 3	R1008	C 7	B 3	R1212	B 2	B 1	VR1200	C 1	B 2

Table 9-7B

OFFSET LOOP & OFFSET VCO ◇6◇ — VCO, 50 MHz BOARD, ASSEMBLY A3A3

CIRCUIT NUMBER	LOCATION SCHEMATIC	LOCATION BOARD	CIRCUIT NUMBER	LOCATION SCHEMATIC	LOCATION BOARD	CIRCUIT NUMBER	LOCATION SCHEMATIC	LOCATION BOARD	CIRCUIT NUMBER	LOCATION SCHEMATIC	LOCATION BOARD
C1001	L 2	B 1	CR1012	F 1	A 3	Q1001	K 2	A 2	R1104	K 3	C 2
C1002	J 1	B 2				Q1002	K 2	B 2	R1111	J 2	C 2
C1011	F 2	B 2	L1011	F 1	A 2	Q1011	J 2	B 2	R1112	H 2	B 2
C1101	H 3	B 2	L1012	H 1	A 3	Q1012	H 2	B 3	R1113	H 2	B 3
C1102	J 3	B 2	L1111	F 3	B 2	Q1101	K 3	B 2	R1114	H 2	B 3
C1103	L 3	C 1	L1112	F 2	C 3						
C1104	F 3	C 2				R1003	K 1	A 2	T1101	K 2	C 1
C1111	H 3	C 2	P1320	M 1,M 2	A 1	R1004	J 1	A 2			
C1112	J 2	C 3	P1420	M 2	B 1	R1005	J 2	B 2	W1002	L 2	A 1
C1113	H 2	C 3	P1424	M 3	C 1	R1006	J 2	B 2	W1101	K 2	B 1
			P1434	F 2,F 3	C 2	R1011	H 2	A 2			
CR1011	F 2	A 3				R1103	J 3	C 2			


A3A3 OFFSET VCO (SLEWING)
OFFSET VCO
(≈ 48.78MHz)
MIXER
OFFSET DIVIDER
OFFSET LOOP OUT-OF-LOCK INDICATOR
OFFSET LOOP PHASE DETECTOR
ACQUISITION CIRCUIT
OFFSET LOOP FILTER
A3A1 OFFSET PHASELOCK BOARD
U1100 TL442CN
U1030B MC1458
U1030A MC1458
P1521-2 +12V
P1615-1 50MHz
P1615-2
OFFSET FREQ
P1500-1
P1500-2
P1434-4 TUNE
P1434-1 +10.5V
P1434-3 GND
P1434-2 -12VSW2
P1424-2
P1424-1
P1320-3
OFFSET CLOCK
P1320-2
GND P1320-1
P1420-1
P1420-2
GND P1420-3
P1521-3 +5VSW2
P1521-5 QUIET GND
P1521-4 -12VSW2
P1510-3 OFFSET CLOCK
P1510-1 OFFSET SELECT
P1510-2 SYNC PULSE
P1510-4 +5VSW2
P1510-5 GND
OFFSET LOOP OUT OF LOCK P1521-6
P1521-7
TP1100
TP1140
TP1210
TP1220
CG 5010/CG 5011
(2815-146,4767-66)7746-61
OFFSET LOOP & OFFSET VCO 6 JP

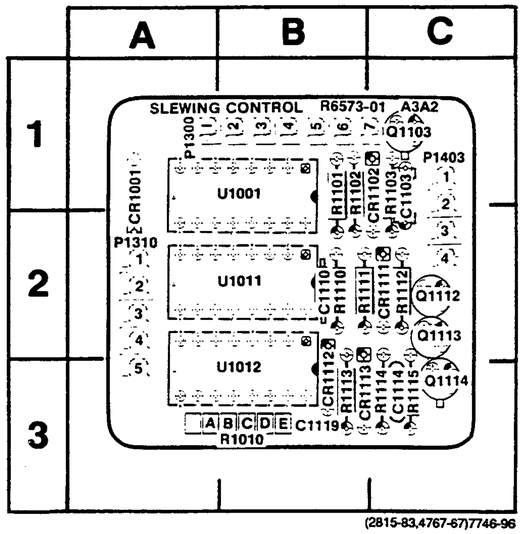


Fig. 9-46. Slewing Control Board (A3A2).

SEE
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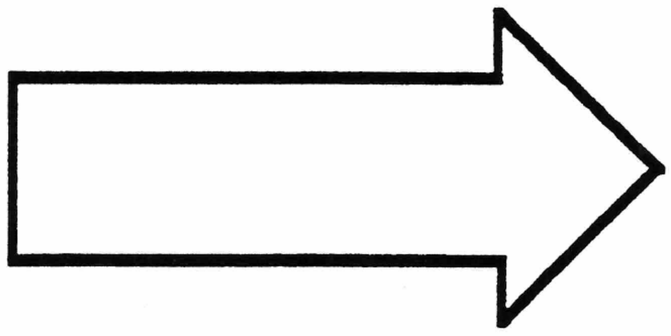
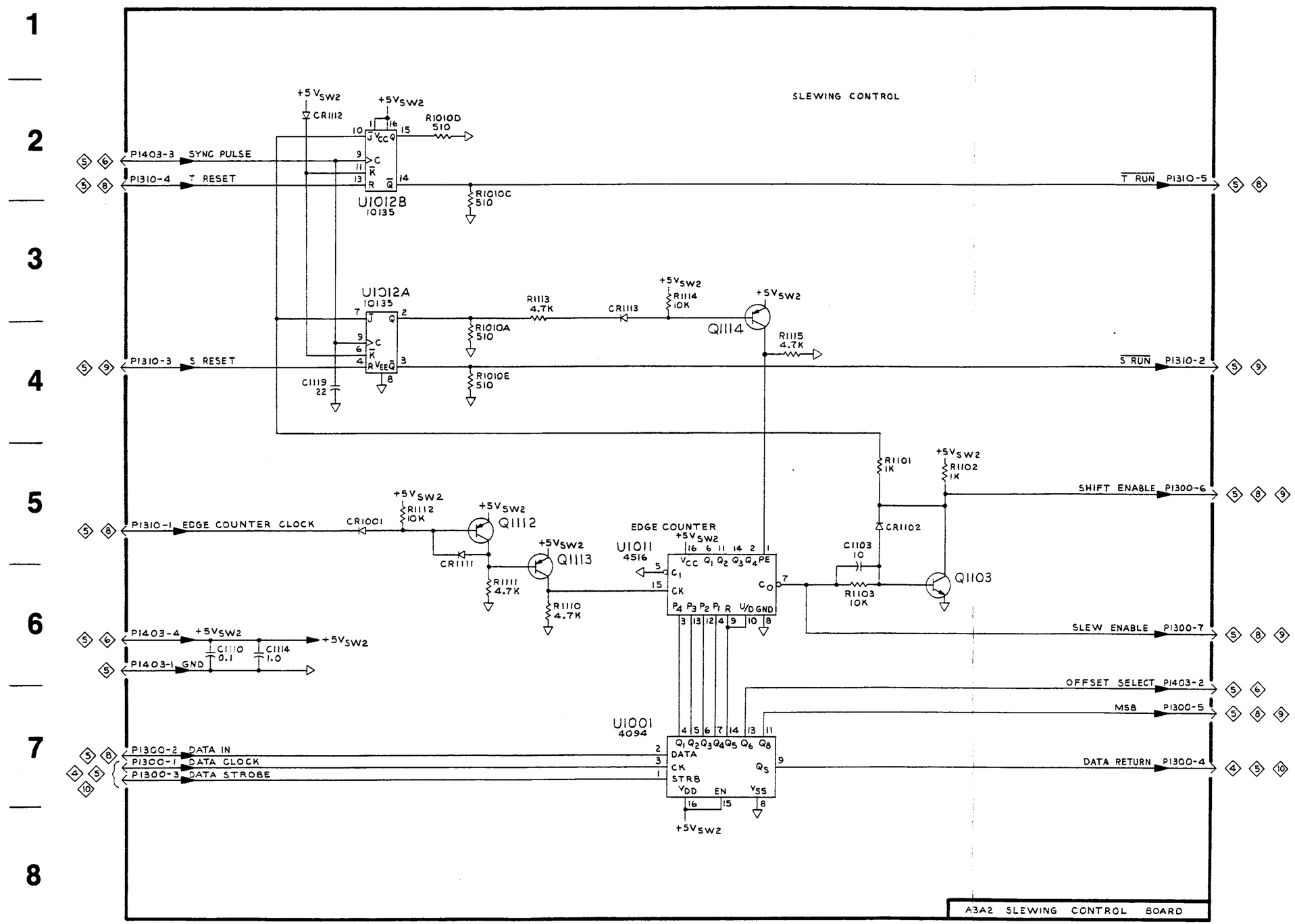


Table 9-8

SLEWING CONTROL ◇7◇ — SLEW CONTROL BOARD, ASSEMBLY A3A2

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C1103	H 5	C 1	R1010A	D 4	A 3
C1110	B 6	B 2	R1010C	D 2	A 3
C1114	C 6	C 3	R1010D	D 2	A 3
C1119	C 4	B 3	R1010E	D 4	A 3
			R1101	J 5	B 1
CR1102	J 5	C 1	R1102		B 1
CR1111	D 6	B 2	R1103	H 6	C 1
CR1112	C 2	B 3	R1110	E 6	B 2
CR1113	E 3	B 3	R1111	D 6	B 2
CR1001	C 5	A 1	R1112	D 5	C 2
			R1113	E 3	B 3
P1300	L 5,L 6,L 7	A 1	R1114	F 3	C 3
P1310	A 2,A 4,A 5,A 7	C 1	R1115	H 4	C 3
P1310	L 2,L 4	C 1			
P1403	A 2,A 7,L 6	C 1	U1001	F 7	B 1
			U1011	F 5	B 2
Q1103	J 6	C 1	U1012A	C 3	B 3
Q1112	D 5	C 2	U1012B	C 2	B 3
Q1113	E 5	C 2			
Q1114	F 4	C 3			


SLEWING CONTROL
+5VSW2
CR1112
R1010D 510
P1403-3 SYNC PULSE
P1310-4 T RESET
U1012B 10135
R1010C 510
T RUN P1310-5
U1012A 10135
R1113 4.7K
CR1113
R1114 10K
Q1114
R1115 4.7K
P1310-3 S RESET
R1010A 510
R1010E 510
C1119 22
S RUN P1310-2
R1101 1K
R1102 1K
SHIFT ENABLE P1300-6
P1310-1 EDGE COUNTER CLOCK
CR1001
R1112 10K
Q1112
Q1113
CR1111
R1111 4.7K
R1110 4.7K
EDGE COUNTER
U1011 4516
CR1102
C1103 10
R1103 10K
Q1103
SLEW ENABLE P1300-7
P1403-4
P1403-1 GND
C1110 0.1
C1114 1.0
OFFSET SELECT P1403-2
MSB P1300-5
U1001 4094
P1300-2 DATA IN
P1300-1 DATA CLOCK
P1300-3 DATA STROBE
DATA RETURN P1300-4
A3A2 SLEWING CONTROL BOARD

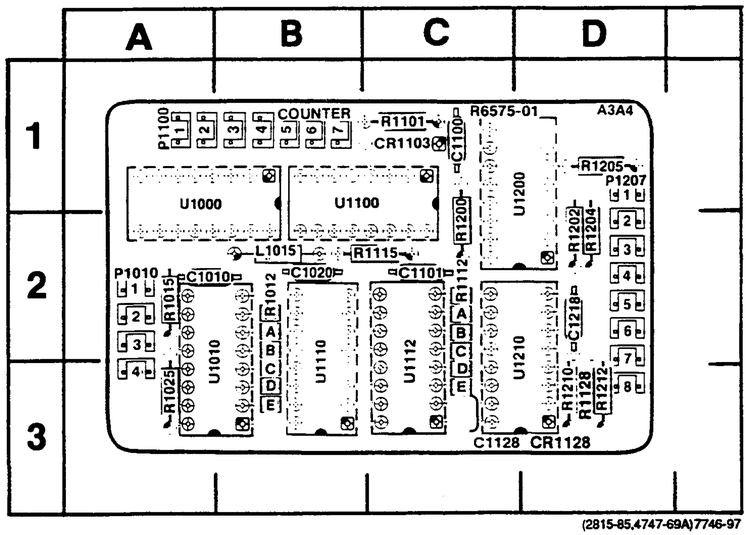


Fig. 9-47. Counter Trigger Board (A3A4).

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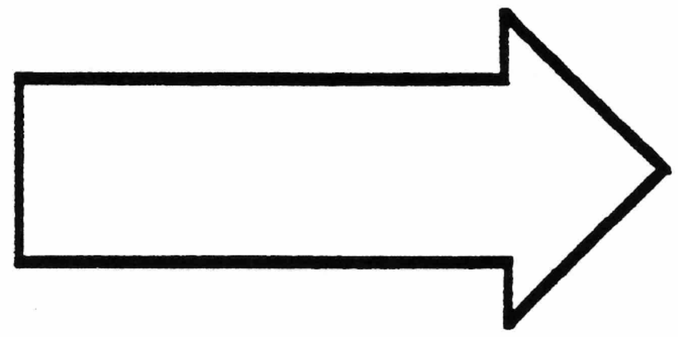
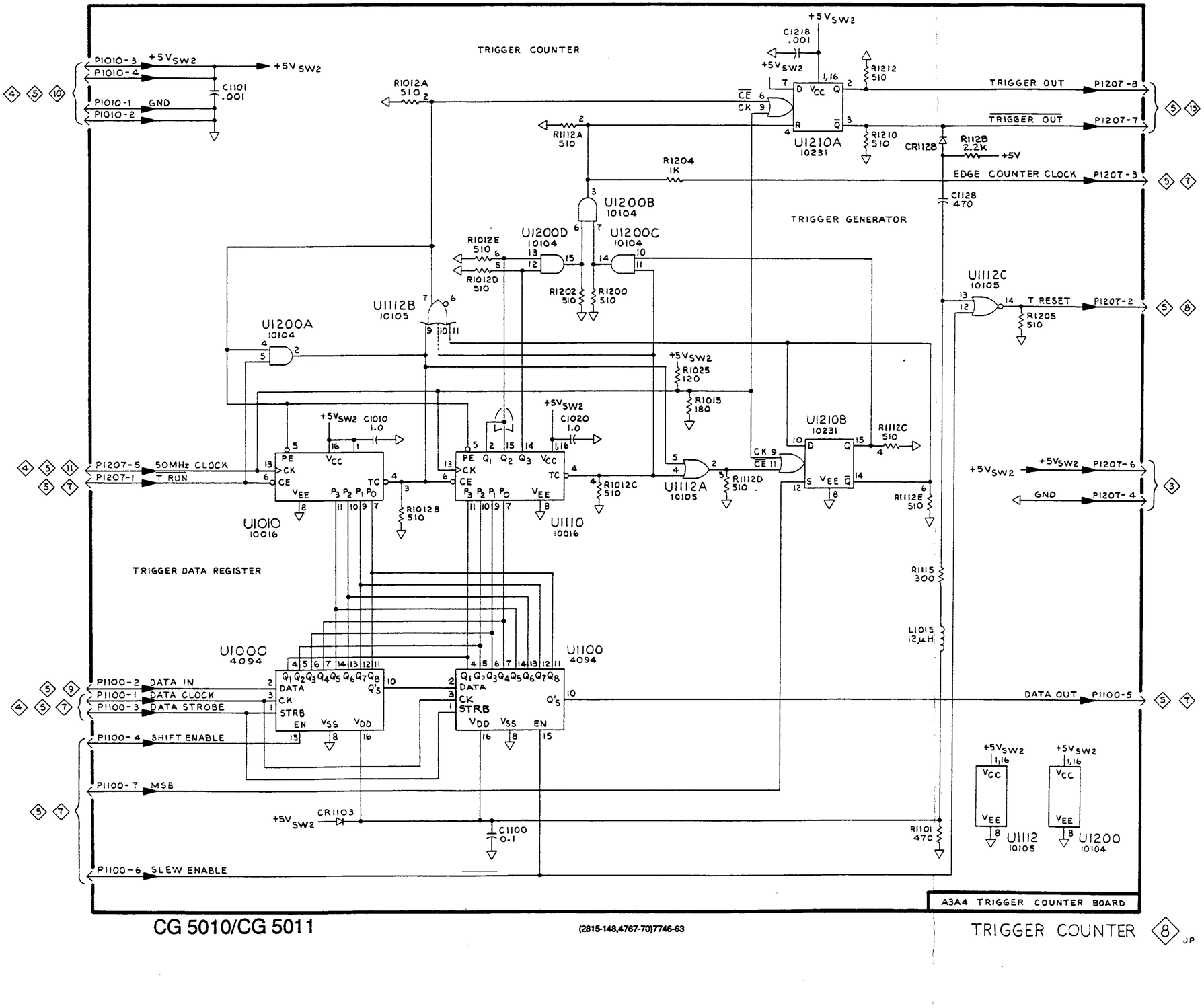


Table 9-9

TRIGGER COUNTER ◇8◇ — TRIGGER COUNTER BOARD, ASSEMBLY A3A4

CIRCUIT NUMBER	LOCATION SCHEMATIC	LOCATION BOARD	CIRCUIT NUMBER	LOCATION SCHEMATIC	LOCATION BOARD
C1010	D 4	A 2	R1112C	J 5	C 2
C1020	F 4	B 2	R1112D	H 5	C 2
C1100	E 8	C 1	R1112E	K 5	C 2
C1101	C 2	C 2	R1115	K 6	C 2
C1128	K 3	C 3	R1128	K 2	D 3
C1218	J 1	D 2	R1200	F 3	C 2
			R1202	F 3	D 2
CR1103	D 8	C 1	R1204	H 2	D 2
CR1128	K 2	D 3	R1205	K 4	D 1
			R1210	J 2	D 3
L1015	K 6	B 2	R1212	J 1	D 3
P1010	B 1,B2	A 2	U1000	C 6	A 1
P1100	B 7,B8,L7	A 1	U1010	C 5	A 3
P1207	B 5,L 2,L 3,L 5	D 1	U1100	F 6	B 1
			U1110	F 5	B 2
R1012A	D 2	B 2	U1112A	H 5,K 8	C 3
R1012B	D 5	B 2	U1112B	D 3	C 3
R1012C	F 5	B 2	U1112C	K 3	C 3
R1012D	E 3	B 2	U1200A	C 4,L 8	C 1
R1012E	E 3	B 2	U1200B	F 3	C 1
R1015	H 4	A 2	U1200C	F 3	C 1
R1025	H 4	A 3	U1200D	E 3	C 1
R1101	K 8	C 1	U1210A	J 2	C 3
R1112A	F 2	C 2	U1210B	J 4	C 3



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(2815-148,4767-70)7746-63

TRIGGER COUNTER 8 JP

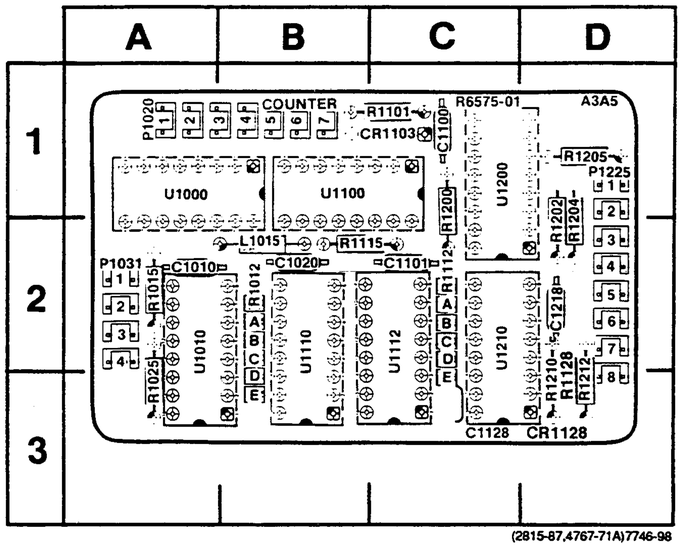


Fig. 9-48. Counter Slewing Board (A3A5).

SEE
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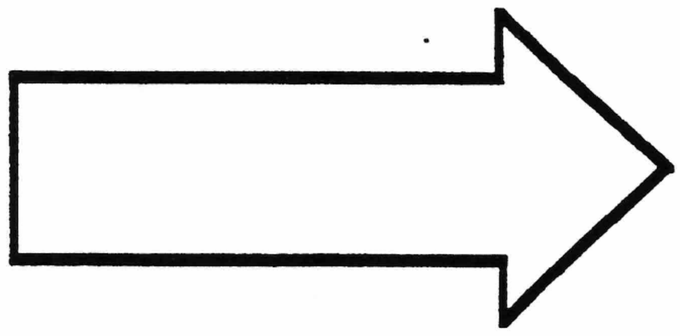
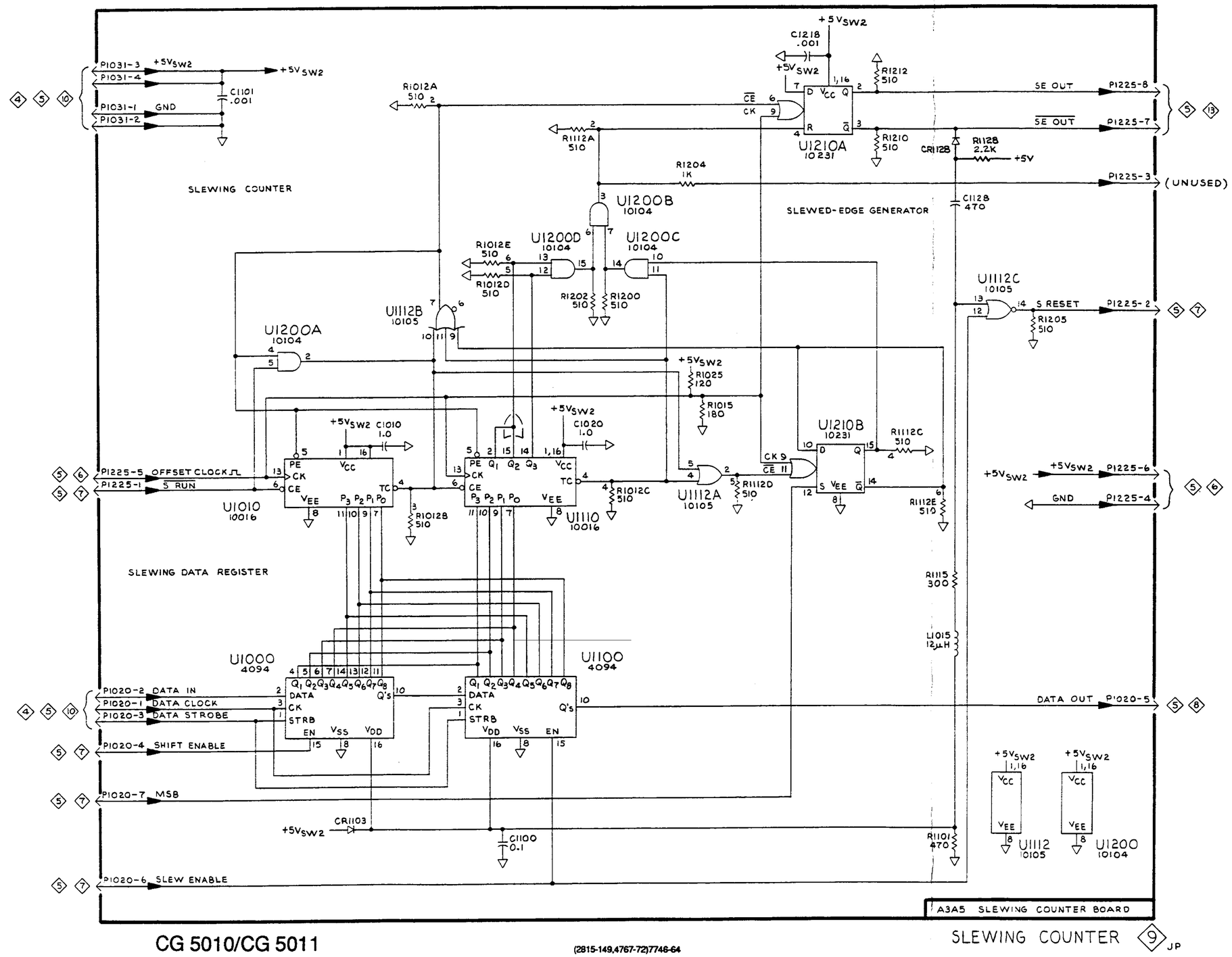


Table 9-10

SLEWING COUNTER ◇9◇ — SLEWING COUNTER BOARD, ASSEMBLY A3A5

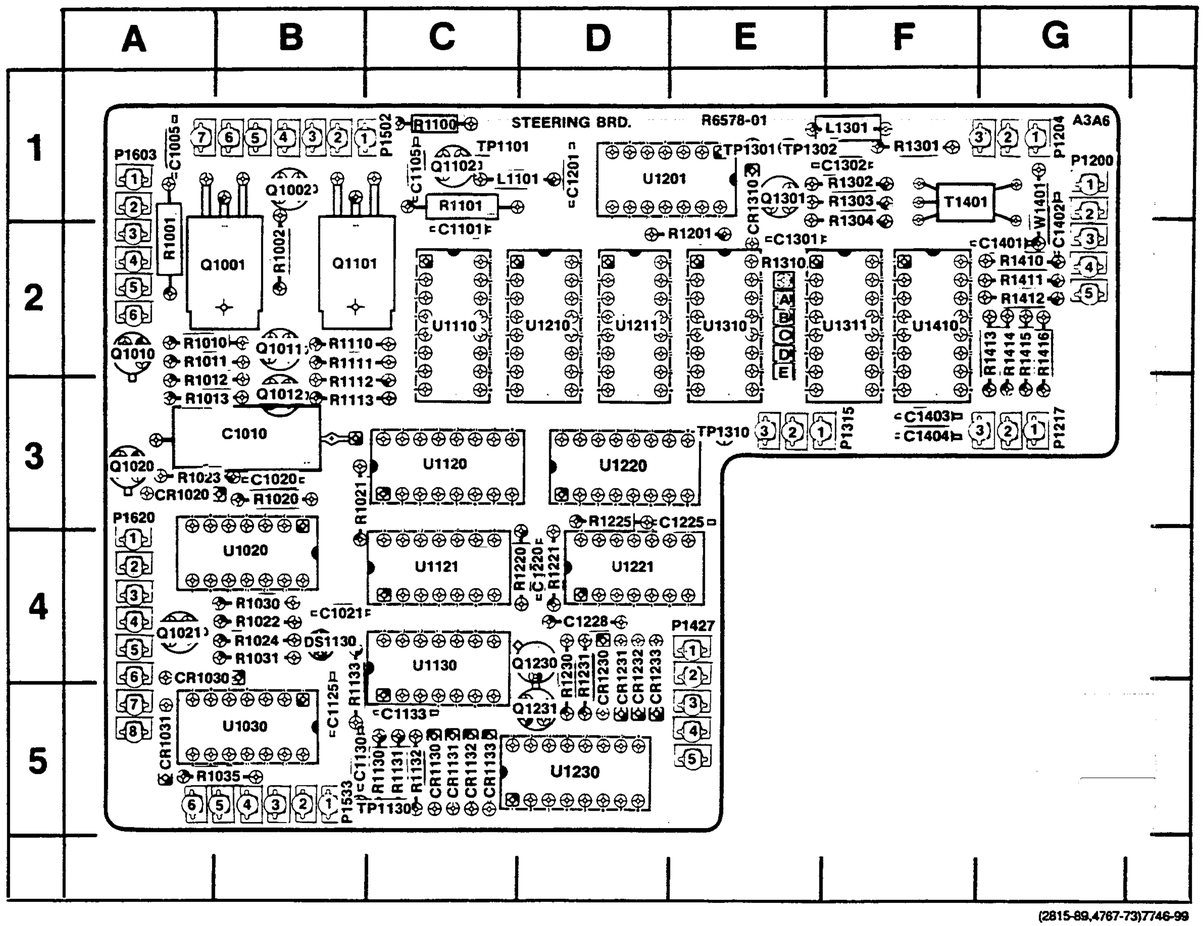
CIRCUIT NUMBER	LOCATION SCHEMATIC	LOCATION BOARD	CIRCUIT NUMBER	LOCATION SCHEMATIC	LOCATION BOARD
C1010	D 4	A 2	R1112C	J 5	C 2
C1020	F 4	B 2	R1112D	H 5	C 2
C1100	E 8	C 1	R1112E	K 5	C 2
C1101	C 2	C 2	R1115	K 6	C 2
C1128	K 3	C 3	R1128	K 2	D 3
C1218	J 1	D 2	R1200	F 3	C 2
			R1202	F 3	D 2
CR1103	D 8	C 1	R1204	H 2	D 2
CR1128	K 2	D 3	R1205	K 4	D 1
			R1210	J 2	D 3
L1015	K 6	B 2	R1212	J 1	D 3
P1020	B 7,B 8,L 7	A 1	U1000	C 6	A 1
P1031	B 1,B 2	A 2	U1010	C 5	A 3
P1225	B 5,L 2,L 3,L 5	D 1	U1100	F 6	B 1
			U1110	F 5	B 2
R1012A	D 2	B 2	U1112A	H 5,K 8	C 2
R1012B	D 5	B 2	U1112B	D 3	C 2
R1012C	F 5	B 2	U1112C	K 3	C 2
R1012D	E 3	B 2	U1200A	C 4,L 8	D 1
R1012E	E 3	B 2	U1200B	F 3	D 1
R1015	H 4	A 2	U1200C	F 3	D 1
R1025	H 4	A 3	U1200D	E 3	D 1
R1101	K 8	C 1	U1210A	J 2	C 3
R1112A	F 2	C 2	U1210B	J 4	C 3



CG 5010/CG 5011

(2815-149,4767-72)7746-64

SLEWING COUNTER 9 JP



(2815-89,4767-73)7746-99

Fig. 9-49. Steering Board (A3A6).

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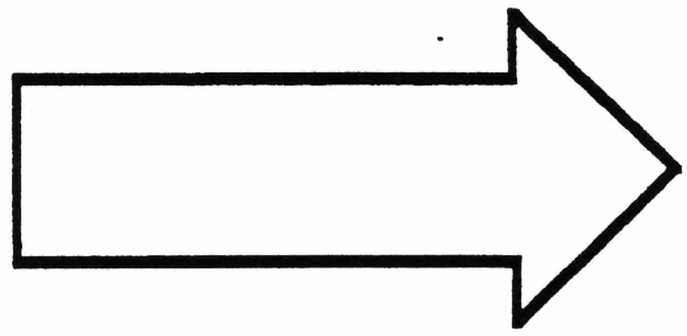
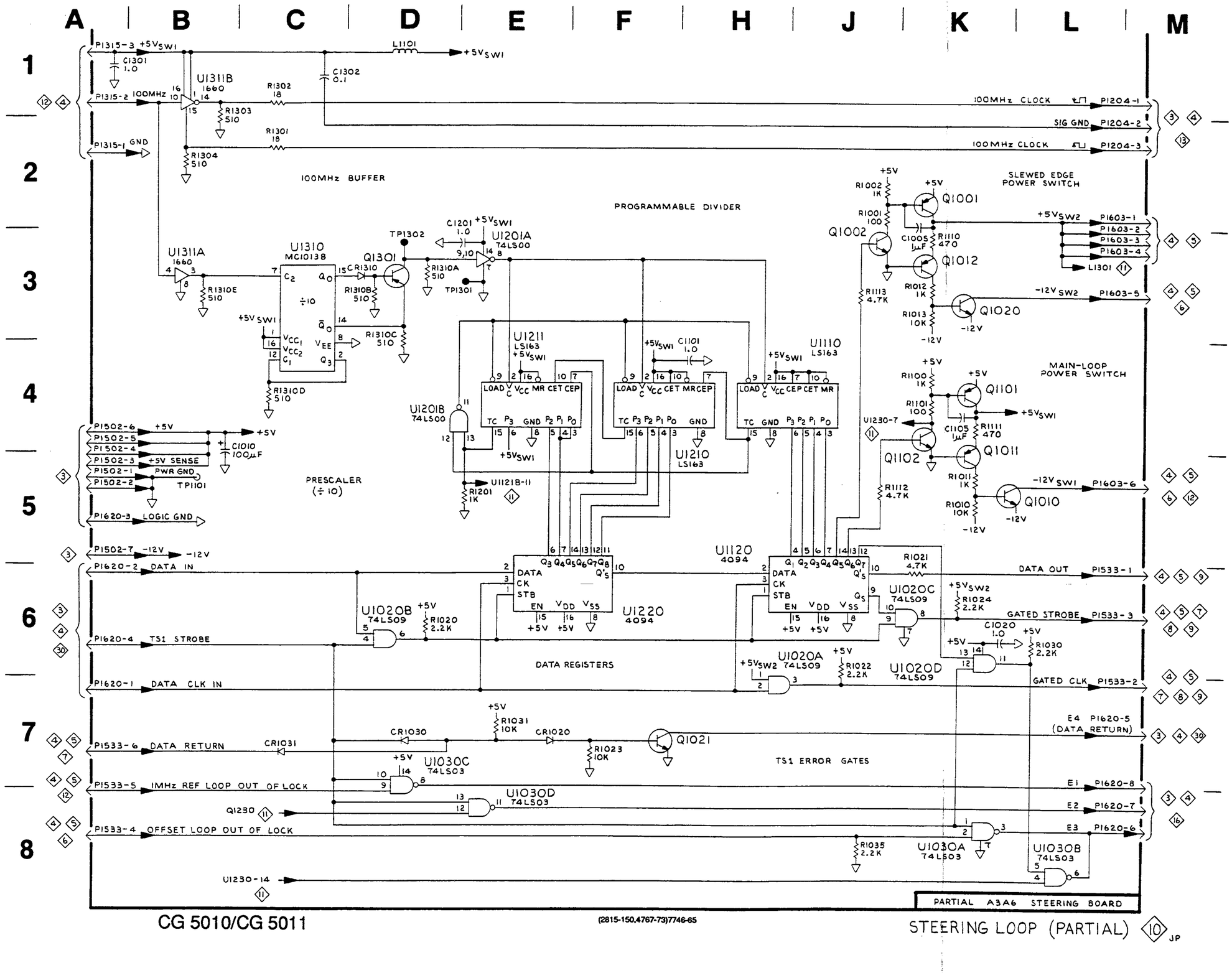


Table 9-11

STEERING LOOP (PARTIAL) ◇10◇ — STEERING BOARD, ASSEMBLY A3A6

CIRCUIT NUMBER	LOCATION SCHEMATIC	LOCATION BOARD	CIRCUIT NUMBER	LOCATION SCHEMATIC	LOCATION BOARD	CIRCUIT NUMBER	LOCATION SCHEMATIC	LOCATION BOARD
C1005	K 3	A 1	Q1020	K 3	A 3	R1304	B 2	F 1
C1010	C 4	B 3	Q1021	H 7	A 4	R1310A	D 3	E 2
C1020	K 6	B 3	Q1101	K 4	B 2	R1310B	D 3	E 2
C1101	H 4	C 2	Q1102	K 4	C 1	R1310C	D 3	E 2
C1105	K 4	C 1	Q1301	D 3	E 1	R1310D	C 4	E 2
C1201	D 2	D 1				R1310E	B 3	E 2
C1301	A 1	E 2	R1001	J 2	A 2			
C1302	C 1	F 1	R1002	J 2	B 2	TP1101	B 5	C 1
			R1010	K 5	A 2	TP1301	E 3	E 1
CR1020	E 7	A 3	R1011	K 5	A 2	TP1302	D 3	E 1
CR1030	D 7	A 4	R1012	K 3	A 2			
CR1031	C 7	A 5	R1013	K 3	A 3	U1020A	J 6	B 4
CR1310	D 3	E 1	R1020	D 6	B 3	U1020B	D 6	B 4
			R1021	K 5	B 3	U1020C	K 6	B 4
L1101	D 1	C 1	R1022	J 6	B 4	U1020D	K 6	B 4
			R1023	F 7	A 3	U1030A	K 8	B 5
P1204	M 1,M 2	G 1	R1024	K 6	B 4	U1030B	L 8	B 5
P1315	A 1,A 2	F 3	R1030	L 6	B 4	U1030C	D 7	B 5
P1502	A 4,A 5	C 1	R1031	E 7	B 4	U1030D	E 8	B 5
P1533	A 7,A 8, M 6,M 7	B 5	R1035	J 8	B 5	U1110	J 4	C 2
			R1100	K 4	C 1	U1120	H 5	C 3
P1603	M 2,M 3,M 5	A 1	R1101	K 4	C 1	U1201A	E 3	D 1
P1620	A 5,A 6,A 7, M 7,M 8	A 3	R1110	K 3	B 2	U1201B	D 4	D 1
			R1111	K 4	B 2	U1210	H 4	D 2
			R1112	J 5	B 3	U1211	E 4	D 2
Q1001	K 2	B 2	R1113	J 3	B 3	U1220	F 6	D 3
Q1002	J 3	B 1	R1201	E 5	E 2	U1310	C 3	E 2
Q1010	L 5	A 2	R1301	C 2	F 1	U1311A	B 3	F 2
Q1011	K 4	B 2	R1302	C 1	F 1	U1311B	B 1	F 2
Q1012	K 3	B 3	R1303	B 1	F 1			



CG 5010/CG 5011

(2815-150,4767-73)7746-65

STEERING LOOP (PARTIAL) 10 JP

SEE
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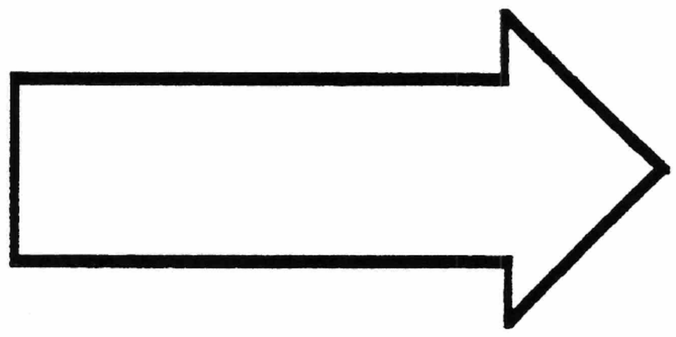
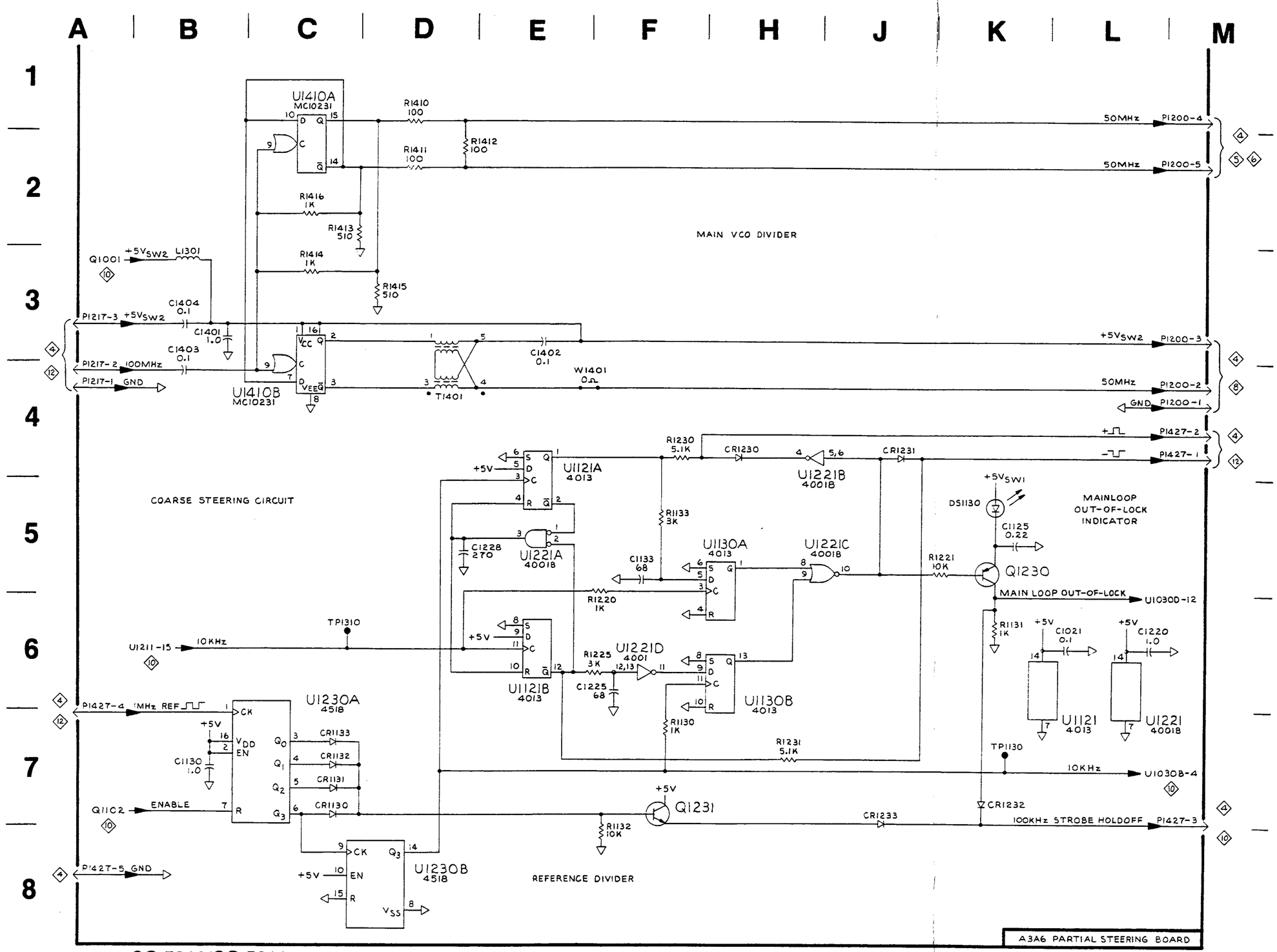


Table 9-12

STEERING LOOP (PARTIAL) ◇11◇ — STEERING BOARD,ASSEMBLY A3A6

CIRCUIT NUMBER	LOCATION SCHEMATIC	LOCATION BOARD
C1021	L 6	B 4
C1125	K 5	B 5
C1130	B 7	B 5
C1133	F 5	C 5
C1220	L 6	D 4
C1225	F 6	E 3
C1228	E 5	D 4
C1401	B 3	G 2
C1402	E 3	G 1
C1403	B 3	F 3
C1404	B 3	F 3
CR1130	C 7	C 5
CR1131	C 7	C 5
CR1132	C 7	C 5
CR1133	C 7	C 5
CR1230	H 4	D 4
CR1231	J 4	D 4
CR1232	K 7	D 4
CR1233	J 7	D 4
DS1130	K 5	B 4
L1301	B 3	F 1
P1200	M 2,M 3,M 4	G 1
P1217	A 3,A 4	G 3
P1427	A 7,A 8,M 4,M	E 4
Q1230	K 5	D 4
Q1231	F 7	D 5
R1130	F 7	C 5
R1131	K 6	C 5
R1132	F 8	C 5
R1133	F 5	B 4
R1220	F 5	D 4
R1221	K 5	D 4
R1225	F 6	D 3
R1230	F 4	D 4
R1231	H 7	D 4
R1410	D 1	G 2
R1411	D 2	G 2
R1412	D 2	G 2
R1413	C 2	G 2
R1414	C 3	G 2
R1415	D 3	G 2
R1416	C 2	G 2
T1401	D 4	F 1
TP1130	K 7	C 5
TP1310	C 6	E 3
U1121A	E 4	C 4
U1121B	E 6,L 7	C 4
U1130A	H 5	C 4
U1130B	H 6	C 4
U1221A	E 5,L 7	D 4
U1221B	H 4	D 4
U1221C	H 5	D 4
U1221D	F 6	D 4
U1230B	D 8	D 5
U1410A	C 1	F 2
U1410B	C 4	F 2
W1401	E 4	G 1



CG 5010/CG 5011

(2815-151,4767-76)7746-66

STEERING LOOP (PARTIAL) 11 JP

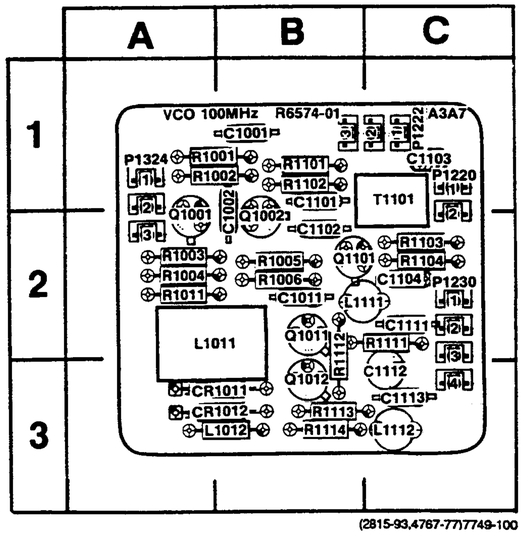


Fig. 9-50. Main VCO Board (A3A7).

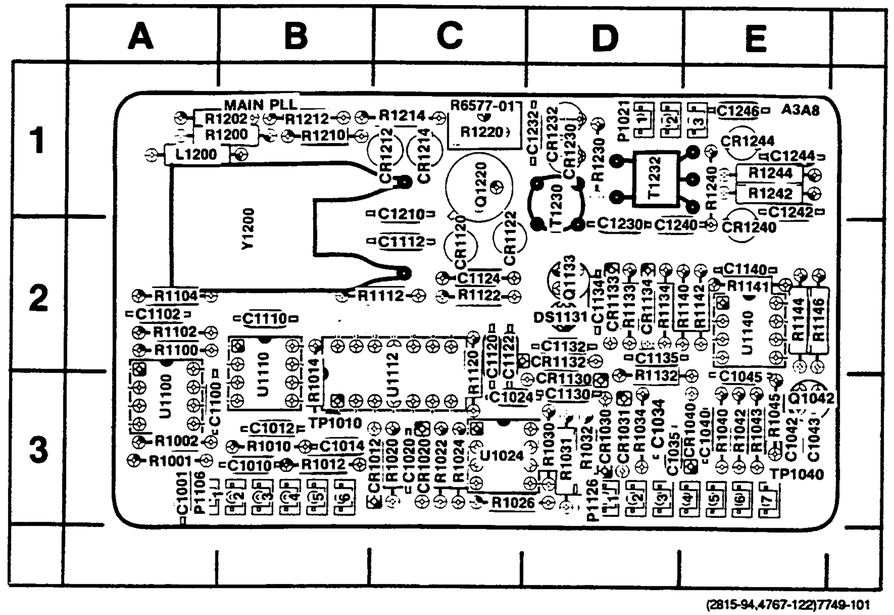


Fig. 9-51. Main PLL Board (A3A8).

Table 9-13A

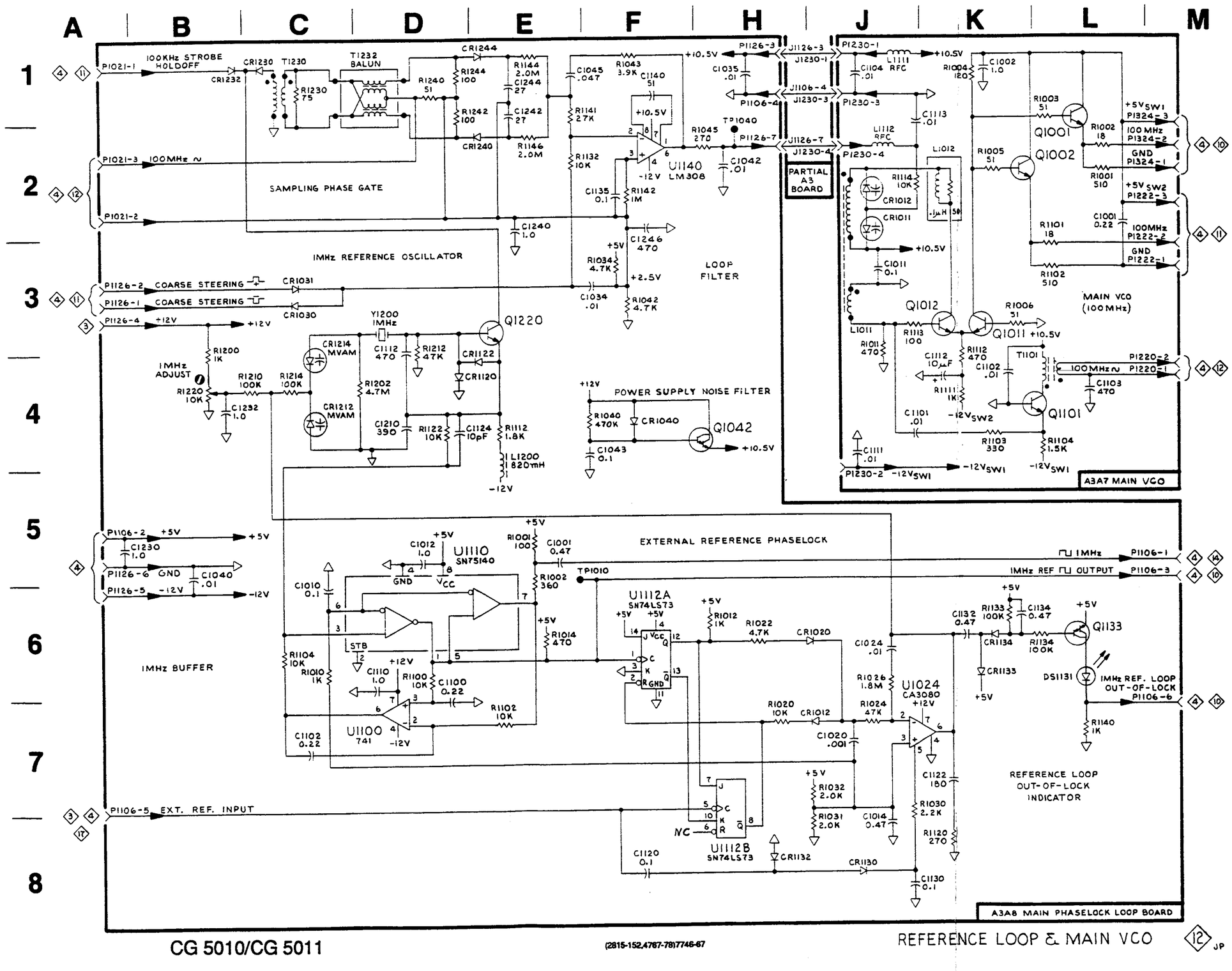
REFERENCE LOOP & MAIN VCO (12) — MAIN VCO BOARD, ASSEMBLY A3A7

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C1001	L 2	B 1	L1011	J 3	A 2	Q1002	L 2	B 2	R1011	J 3	A 2
C1002	K 1	B 1	L1012	K 2	B 3	Q1011	K 3	B 2	R1101	L 2	B 1
C1011	J 3	B 2	L1111	J 1	B 2	Q1012	K 3	B 3	R1102	L 3	B 1
C1101	J 4	B 1	L1112	J 2	C 3	Q1101	L 4	B 2	R1103	K 4	C 2
C1102	K 4	B 2							R1104	L 4	C 2
C1103	L 4	C 1	P1220	M 4	C 1	R1001	L 2	A 1	R1111	K 4	C 2
C1104	J 1	C 2	P1222	M 2,M 3	C 1	R1002	L 2	A 1	R1112	K 4	B 2
C1111	J 4	C 2	P1230	J 1,J 2,J 5	C 2	R1003	L 1	A 2	R1113	J 3	B 3
C1112	K 4	C 3	P1324	M 2	A 1	R1004	K 1	A 2	R1114	J 2	C 3
C1113	K 1	C 3				R1005	K 2	B 2			
			Q1001	L 2	A 2	R1006	K 3	B 2	T1101	K 4	C 1
CR1011	J 2	B 3									
CR1012	J 2	B 3									

Table 9-13B

REFERENCE LOOP & MAIN VCO (12) — MAIN PHASELOCK LOOP BOARD, ASSEMBLY A3A8

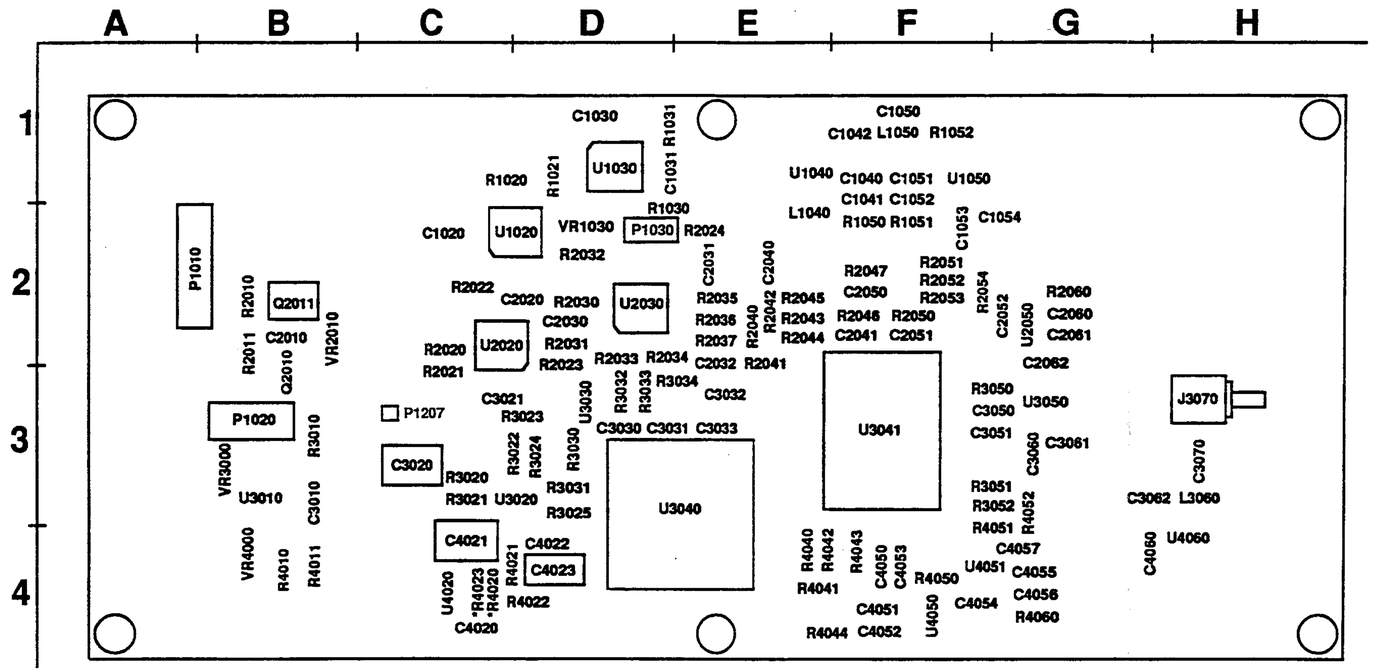
CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C1001	E 5	A 3	CR1012	J 7	C 3	R1001	E 5	A 3	R1200	B 3	B 1
C1010	C 5	B 3	CR1020	J 6	C 3	R1002	E 5	A 3	R1202	D 4	B 1
C1012	D 5	B 3	CR1030	C 3	D 3	R1010	C 6	B 3	R1210	B 4	B 1
C1014	J 8	B 3	CR1031	C 3	D 3	R1012	H 6	B 3	R1212	D 3	B 1
C1020	J 7	C 3	CR1040	F 4	E 3	R1014	E 6	B 2	R1214	C 4	C 1
C1024	J 6	C 3	CR1120	E 4	C 2	R1020	H 7	C 3	R1220	B 4	C 1
C1034	F 3	D 3	CR1122	E 4	C 2	R1022	H 6	C 3	R1230	C 1	D 1
C1035	H 1	D 3	CR1130	J 8	D 3	R1024	J 7	C 3	R1240	D 1	E 1
C1040	B 5	E 3	CR1132	H 8	D 2	R1026	J 6	C 3	R1242	D 1	E 1
C1042	H 2	E 3	CR1133	K 6	D 2	R1030	K 7	D 3	R1244	D 1	E 1
C1043	F 4	E 3	CR1134	K 6	D 2	R1031	J 8	D 3			
C1045	E 1	E 3	CR1212	C 4	C 1	R1032	J 7	D 3	T1230	C 1	D 1
C1100	D 6	A 3	CR1214	C 4	C 1	R1034	F 3	D 3	T1232	D 1	D 1
C1102	C 7	A 2	CR1230	C 1	D 1	R1040	F 4	E 3			
C1110	D 6	B 2	CR1232	B 1	D 1	R1042	F 3	E 3	TP1010	E 5	B 3
C1112	D 3	C 2	CR1240	E 2	E 2	R1043	F 1	E 3	TP1040	H 2	E 3
C1120	F 8	C 2	CR1244	E 1	E 1	R1045	H 2	E 3			
C1122	K 7	C 2				R1100	D 6	A 2	U1024	J 6	C 3
C1124	D 4	C 2	DS1131	L 6	D 2	R1102	E 7	A 2	U1100	D 7	A 3
C1130	K 8	D 3				R1104	C 6	A 2	U1110	D 5	B 2
C1132	K 6	D 2	L1200	E 4	A 1	R1112	E 4	B 2	U1112A	F 6	C 2
C1134	L 6	D 2				R1120	K 8	C 2	U1112B	H 8	C 2
C1135	F 2	D 2	P1021	A 1,A 2	D 1	R1122	D 4	C 2	U1140	F 2	E 2
C1140	F 1	E 2	P1106	A 5,A 7,H 1,	A 3	R1132	E 2	D 3			
C1210	D 4	C 1		M 5,M 7		R1133	K 6	D 2	Y1200	D 3	B 2
C1230	B 5	D 2	P1126	A 3,A 4,A 5,	D 3	R1134	L 6	D 2			
C1232	B 4	D 1		H 1,H 2		R1140	L 7	E 2			
C1240	E 2	D 2				R1141	E 1	E 2			
C1242	E 1	E 1	Q1042	H 4	E 3	R1142	F 2	E 2			
C1244	E 1	E 1	Q1133	L 6	D 2	R1144	E 1	E 2			
C1246	F 3	E 1	Q1220	E 3	C 1	R1146	E 2	E 2			



CG 5010/CG 5011

(2815-152,4767-78)7746-67

REFERENCE LOOP & MAIN VCO 12 JP



* R4020 and R4023 are piggy backed

Fig. 9-51a. CG 5011 Advanced Timing Board (A3A9)

SEE
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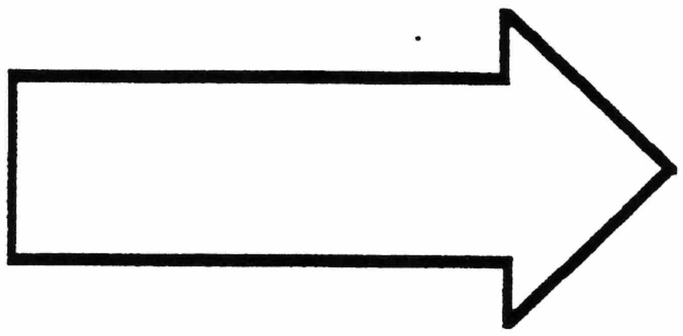
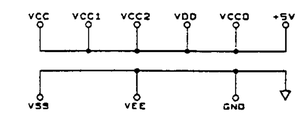


Table 9-13C

FRONT PANEL KEY SWITCHES (12A) — ADVANCED TIMING, ASSEMBLY A3A9

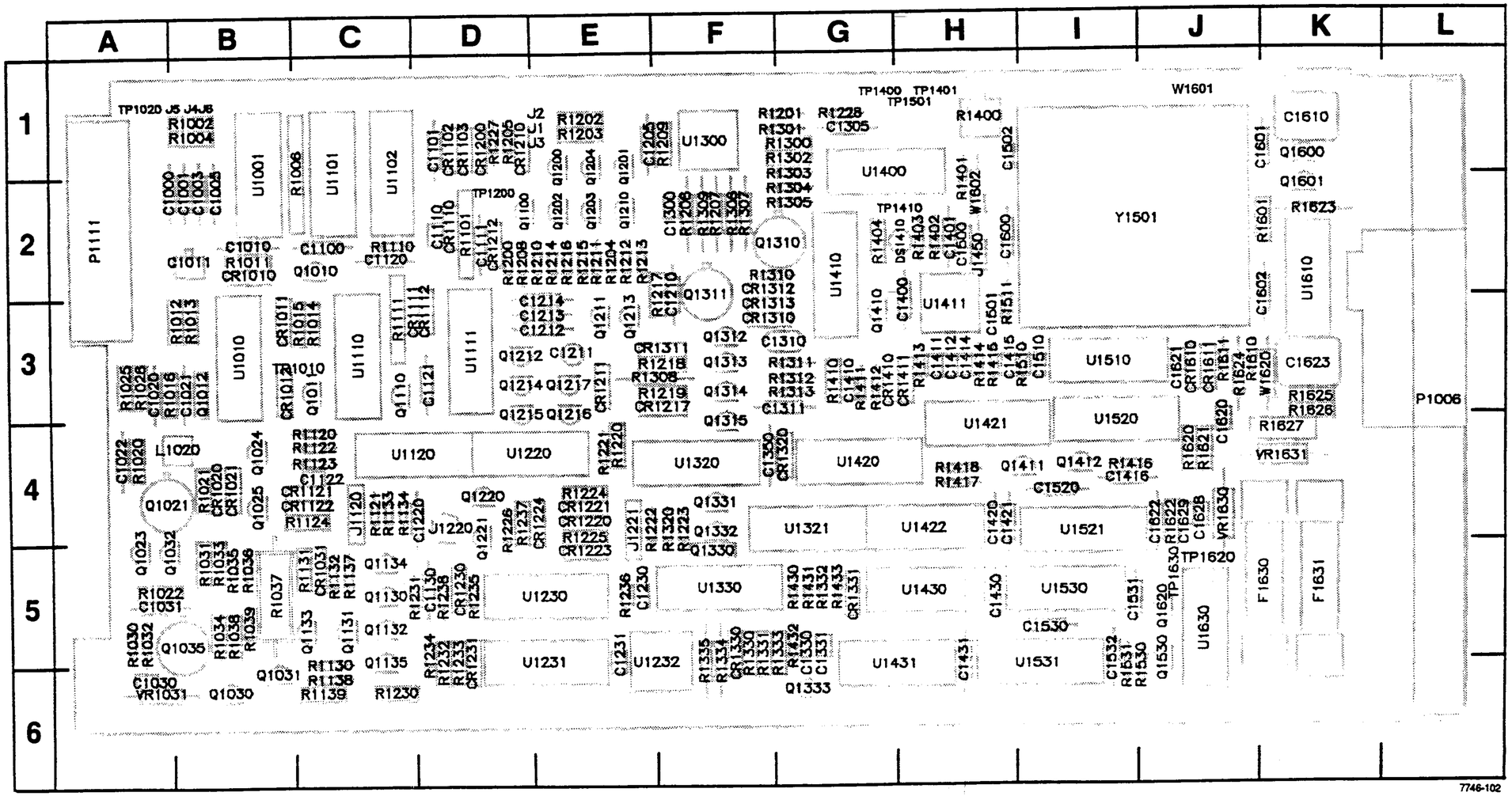
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C1020	D 2	C 2	C3050	D 3	F 3	Q2011	B 1	B 2	R2047	C 4	F 2	R4043	B 3	F 4
C1030	E 2	D 1	C3051	D 3	F 3				R2050	E 4	F 2	R4044	B 3	E 4
C1031	E 3	D 1	C3060	D 3	G 3	R1020	D 2	C 1	R2051	E 3	F 2	R4050	C 3	F 4
C1040	F 3	F 1	C3061	D 3	G 3	R1021	E 3	D 1	R2052	E 3	F 2	R4051	C 3	F 3
C1041	F 3	F 1	C3062	F 4	G 3	R1030	E 3	D 2	R2053	E 3	F 2	R4052	C 3	G 3
C1042	E 3	F 1	C3070	F 4	H 3	R1031	E 2	D 1	R2054	E 3	F 2	R4060	C 3	G 4
C1050	E 3	F 1	C4020	B 1	C 4	R1050	F 3	F 2	R2060	D 3	G 2			
C1051	E 3	F 1	C4021	B 2	C 4	R1051	E 3	F 2	R3010	A 1	B 3	U1020A	D 2	C 2
C1052	E 3	F 1	C4022	B 2	D 4	R1052	E 3	F 1	R3020	B 2	C 3	U1030	E 2	D 1
C1053	E 3	F 2	C4023	B 2	D 4	R2010	B 1	B 2	R3021	B 2	C 3	U1040	F 3	E 1
C1054	E 3	G 2	C4050	B 3	F 4	R2011	B 1	B 2	R3022	C 2	C 3	U1050	E 3	F 1
C2010	B 1	B 2	C4051	B 3	F 4	R2020	D 2	C 2	R3023	C 2	D 3	U2020	C 2	C 2
C2020	B 3	D 2	C4052	B 3	F 4	R2021	D 2	C 3	R3024	C 2	D 3	U2030	E 2	D 2
C2030	D 2	D 2	C4053	B 3	F 4	R2022	D 2	C 2	R3025	B 2	D 3	U2050	D 3	G 2
C2031	F 2	E 2	C4054	C 3	F 4	R2023	C 2	D 3	R3030	B 2	D 3	U3010	A 4	B 3
C2032	F 2	E 3	C4055	C 3	G 4	R2024	B 3	E 2	R3031	B 2	D 3	U3020A	B 2	C 3
C2040	F 3	E 2	C4056	C 3	G 4	R2030	C 2	D 2	R3032	C 1	D 3	U3030	B 1	D 3
C2041	D 4	F 2	C4057	C 3	G 4	R2031	F 2	D 2	R3033	C 1	D 3	U3040	B 3	E 3
C2050	D 4	F 2	C4060	E 4	G 4	R2032	E 2	D 2	R3034	C 1	E 3	U3041	E 4	F 3
C2051	E 4	F 2				R2033	E 2	D 3	R3050	D 3	F 3	U3050	D 3	G 3
C2052	E 3	G 2	J3070	F 4	H3	R2034	F 2	D 3	R3051	D 3	F 3	U4020	B 1	C 4
C2060	D 3	G 2				R2035	F 3	E 2	R3052	C 3	F 3	U4050	C 3	F 4
C2061	D 3	G 2	L1040	F 3	E 2	R2036	F 3	E 2	R4010	D 2	B 4	U4051	C 3	F 4
C2062	D 3	G 3	L1050	E 3	F 1	R2037	F 2	E 2	R4011	A 3	B 4	U4060	E 4	H 4
C3010	A 3	B 3	L3060	F 4	H 3	R2040	F 3	E 2	R4020	C 1	C 4			
C3020	B 2	C 3				R2041	F 2	E 3	R4021	C 1	C 4	VR1030	E 2	D 2
C3021	C 2	C 3	P1010	A 1	A 2	R2042	F 3	E 2	R4022	B 2	D 4	VR2010	B 1	B 2
C3030	B 1	D 3	P1020	A 3	B 3	R2043	F 3	E 2	R4023	C 1	C 4	VR3000	B 2	B 3
C3031	B 3	D 3	P1030	A 3	D 2	R2044	F 3	E 2	R4040	B 3	E 4	VR4000	B 2	B 4
C3032	C 1	E 3	P1207	A3	C3	R2045	F 3	E 2	R4041	B 3	E 4			
C3033	B 3	E 3	Q2010	B 1	B 3	R2046	C 3	F 2	R4042	B 3	E 4			

POWER PIN TABLE		
DEVICE TYPE	VDD VCC VCC1 VCC2 +5V	VSS VMS GND
UPC1678G	8	2, 3, 4, 6, 7



TRUTH TABLE		C1	C2	/5	/4	PWR	
		GP1	GP2	GP3	GP4	GP5	ADDR
RF2	200MHz	0	1	1	0	1	H34
RF3	500MHz	1	0	0	1	1	H4C
RF4	1GHz	0	0	0	1	1	H0C
RF5	2GHz	1	1	0	1	1	H6C

Static Sensitive Devices (See Maintenance Section)



A4

Fig. 9-52. Time Mark Board (A4).

SEE
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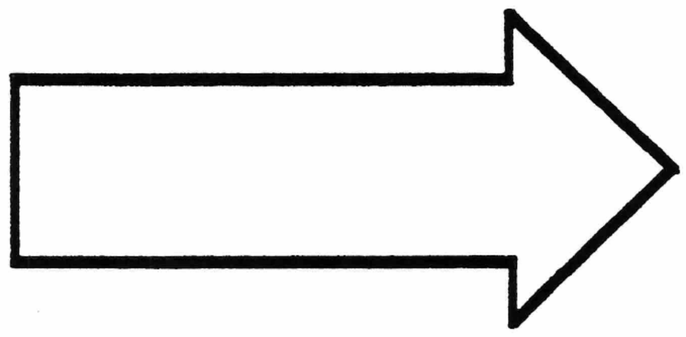


Table 9-14

FAST MARKERS & MARKER AMPLIFIER ◇13◇ — TIME MARK BOARD, ASSEMBLY A4

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C1000	A 2	B 1	L1020	E 4	B 4	R1016	D 2	B 3	R1139	F 1	C 6
C1001	A 2	B 1				R1020	F 2	A 5	R1210	D 3	D 2
C1003	A 3	B 2	P1111	A 1,A 2,	A 2	R1021	F 1	B 4	R1230	E 1	C 6
C1005	A 2	B 2		A 3,F 2		R1022	E 2	A 5	R1231	E 1	C 6
C1010	B 4	B 2	P1120	A 4	C 4	R1025	F 2	A 4	R1234	E 4	D 5
C1011	D 2	B 2				R1026	F 2	A 4			
C1020	D 1	A 3	Q1010	C 2	B 2	R1030	E 2	A 5	TP1010	D 4	B 3
C1021	D 4	B 4	Q1011	C 1	B 3	R1031	E 2	B 5	TP1020	A 1	A 3
C1022	F 2	A 5	Q1012	D 1	B 3	R1032	E 2	A 5			
C1030	E 2	A 6	Q1021	F 2	B 4	R1033	E 2	B 5	U1001A	B 2	B 1
C1031	E 2	B 5	Q1023	E 2	B 4	R1034	F 2	B 5	U1001B	B 2	B 1
C1100	C 4	C 2	Q1024	F 4	B 4	R1035	E 2	B 5	U1001C	B 3	B 1
C1101	D 4	D 2	Q1025	F 4	B 4	R1036	E 2	B 5	U1001D	B 4	B 1
C1110	B 2	C 2	Q1030	F 1	B 6	R1037	F 4	B 5	U1010A	D 2	B 3
C1111	D 3	D 2	Q1031	F 1	B 6	R1038	F 1	B 5	U1010B	D 2	B 3
C1120	C 4	C 4	Q1032	E 2	B 5	R1039	E 1	B 5	U1010E	E 4	B 3
C1121	D 4	D 4	Q1035	F 2	B 5	R1101B	C 3	D 2	U1101A	C 2	C 1
C1122	E 4	C 4	Q1100	E 2	D 2	R1101C	C 3	D 2	U1101B	C 4	C 1
C1130	E 1	C 6	Q1110	B 3	C 3	R1101D	D 3	D 2	U1102A	D 3	C 1
			Q1130	E 4	C 5	R1101E	C 3	D 2	U1102B	C 4	C 1
CR1010	D 1	A 3	Q1131	E 1	C 5	R1110	B 2	C 2	U1110A	D 3	C 3
CR1011	C 2	C 3	Q1132	E 1	C 5	R1111A	D 3	C 3	U1110B	B 3	C 3
CR1012	C 2	C 3	Q1133	E 1	C 5	R1111B	B 3	C 3	U1110C	B 3	C 3
CR1020	E 2	B 4				R1111C	E 3	C 3	U1110D	C 2	C 3
CR1021	E 2	B 4	R1002	A 2	B 1	R1111D	E 3	C 3	U1110E	C 4	C 3
CR1031	E 1	C 5	R1004	A 3	B 2	R1111E	E 3	C 3	U1111A	C 3	D 3
CR1102	D 3	D 1	R1006A	B 3	B 1	R1120	C 1	C 4	U1111B	C 3	D 3
CR1103	E 2	D 1	R1006B	B 2	B 1	R1121	B 3	C 4	U1111C	E 3	D 3
CR1110	C 3	C 2	R1006C	B 2	B 1	R1122	E 4	C 4	U1111D	E 3	D 3
CR1111	B 3	C 3	R1006D	C 2	B 1	R1123	E 4	C 4	U1111E	D 4	D 3
CR1112	B 3	C 3	R1006F	B 2	B 1	R1124	F 4	C 4			
CR1121	E 4	C 4	R1006G	C 3	B 1	R1130	E 1	B 6	VR1031	E 2	A 6
CR1122	E 4	C 4	R1011	C 2	B 2	R1131	D 1	C 5	W1601		J1
CR1200	E 3	D 1	R1012	D 2	A 3	R1132	C 1	C 5			
CR1320	B 3	F 4	R1013	D 2	B 3	R1133	E 4	C 5			
			R1014	C 2	B 3	R1134	D 1	C 5			
J1120	A 4	C 4	R1015	C 2	B 3	R1138	E 1	C 6			

MARKER AMPLIFIER

P1111-3A +5V
P1111-3B
P1111-1A GND
P1111-1B
TP1020
MKR
MKR_BOOST_GATE
BOOST
A3
MKR_GATE
P1111-9A 100 MHz
P1111-10A SIG GND
P1111-11A 100 MHz
X5F
X2F
SLOW_MKR_DRIVE
P1120
J1120-4
J1120-3 SLEWED EDGE
J1120-2 SLEWED EDGE
J1120-1
SL
+12V
-12V
TIME SHIELD P1111-6B
TIME-MODE OUT P1111-7B
10MHz_DRIVE
FAST_TRIG

LINE RECEIVER

FAST MARKER DIVIDER

FAST MARKER SHAPER

DIVIDE BY 10

FAST TRIGGER GENERATOR

COMPONENT NUMBER EXAMPLE

COMPONENT NUMBER
A23 Q2 R1234
Assembly Number
Schematic Circuit Number
Subassembly Number (if needed)

Static Sensitive Devices (See Maintenance Section)

Chassis-mounted components have no Assembly Number prefix--see end of Replaceable Electrical Parts List.

P/O A4 TIME MARK BD.

(7745-68)

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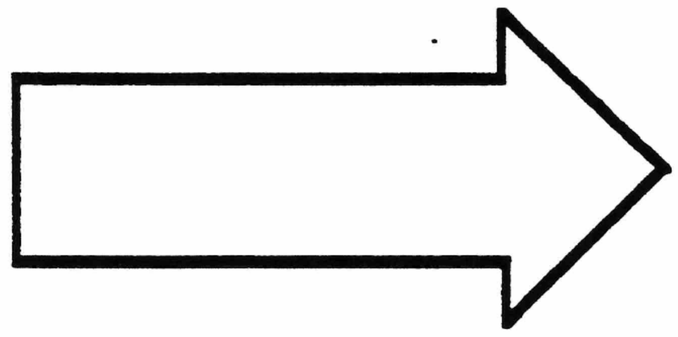
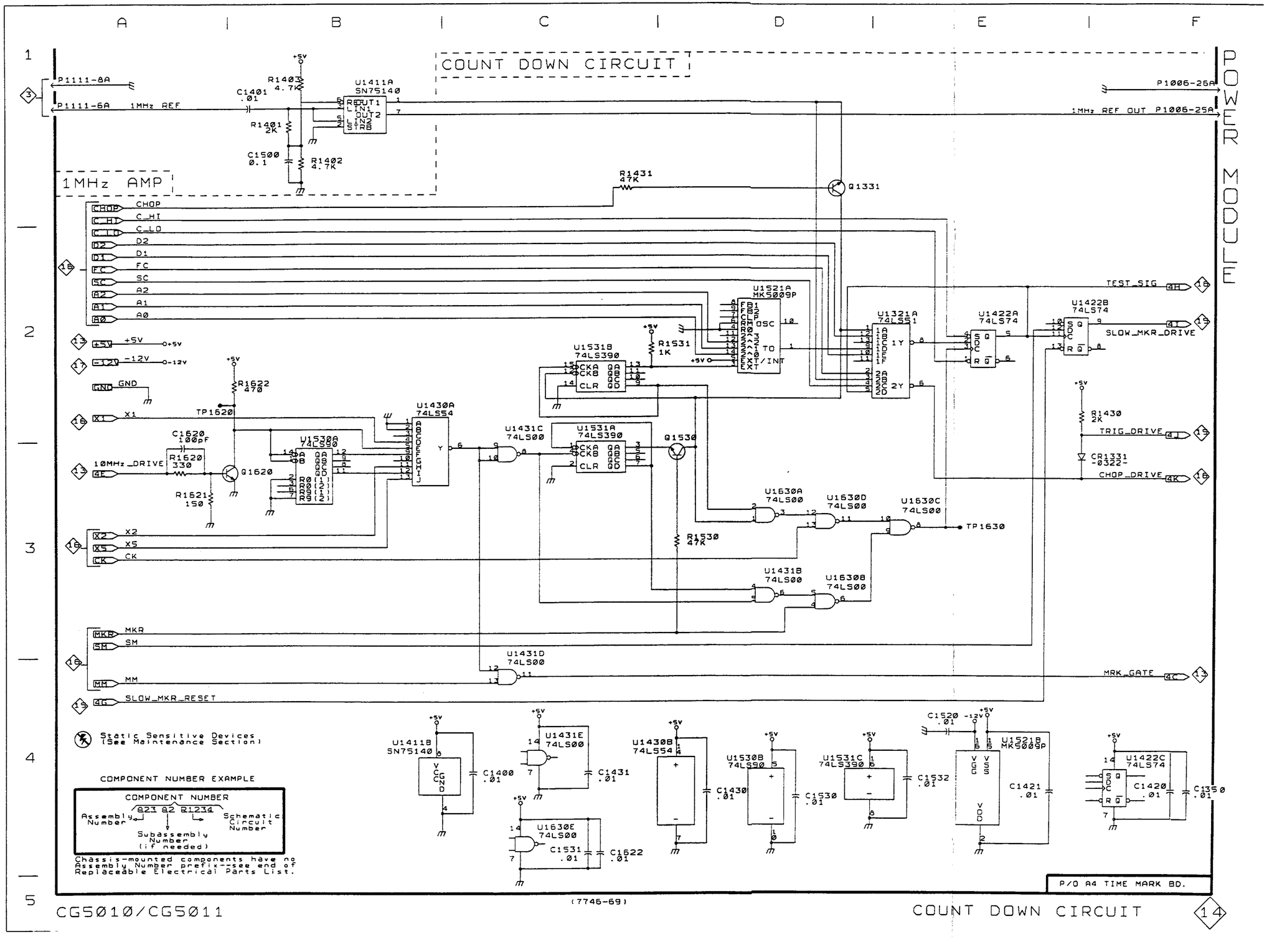


Table 9-15

COUNT DOWN CIRCUIT ◇14◇ — TIME MARK BOARD, ASSEMBLY A4

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C1350	F4	F4			
C1400	B 4	H 2	R1621	A 3	J 4
C1401	B 1	H 2	R1622	B 2	J 4
C1420	F 4	H 4			
C1421	E 4	H 4	TP1620	A 2	J 4
C1430	C 4	H 5	TP1630	E 3	J 6
C1431	B 4	H 5			
C1500	B 1	H 2	U1321A	E 2	F 4
C1520	E 4	I 4	U1411A	B 1	H 2
C1530	D 4	I 5	U1411B	A 4	H 2
C1531	C 4	I 5	U1422A	E 2	H 4
C1532	D 4	I 5	U1422B	E 2	H 4
C1620	A 2	J 4	U1422C	E 4	H 4
C1622	C 4	J 5	U1430A	B 2	H 5
			U1430B	C 4	H 5
CR1331	F 3	G 5	U1431B	D 3	G 5
			U1431C	C 2	G 5
P1006	F 1	L 4	U1431D	C 4	G 5
P1111	A 1	A 2	U1431E	B 4	G 5
			U1521A	D 2	I 4
Q1331	D 1	G 5	U1521B	E 4	I 4
Q1530	D 2	J 6	U1530A	D 3	I 5
Q1620	B 3	J 4	U1530B	D 4	I 5
			U1531A	C 2	I 5
R1401	B 1	H 2	U1531B	C 2	I 5
R1402	B 1	H 2	U1531C	D 4	I 5
R1403	B 1	H 2	U1630A	D 3	J 5
R1430	F 2	G 5	U1630B	D 3	J 5
R1431	C 1	G 5	U1630C	E 3	J 5
R1530	D 3	I 5	U1630D	D 3	J 5
R1531	D 2	I 5	U1630E	C 4	J 5
R1620	A 3	J 4			


COUNT DOWN CIRCUIT
1MHz AMP
P1111-8A
P1111-6A 1MHz REF
P1006-26A
1MHz REF OUT P1006-25A
POWER MODULE
R1401 4.7K
C1401 .01
U1411A SN75140
R1401 2K
C1500 0.1
R1402 4.7K
R1431 47K
Q1331
CHOP
C_HI
C_LO
D2
D1
FC
SC
A2
A1
A0
+5V
-12V
GND
X1
X2
X5
CK
MKR
SM
MM
SLOW_MKR_RESET
10MHz_DRIVE
R1622 470
TP1620
C1620 100pF
R1620 330
Q1620
R1521 150
U1530A 74LS590
U1430A 74LS554
U1431C 74LS00
U1531A 74LS390
Q1530
U1521A MK5009P
OSC
TO
T/INT
U1531B 74LS390
R1531 1K
U1321A 74LS51
U1422A 74LS74
U1422B 74LS74
TEST_SIG
SLOW_MKR_DRIVE
R1430 2K
TRIG_DRIVE
CR1331 -0322-
CHOP_DRIVE
U1630A 74LS00
U1630D 74LS00
U1630C 74LS00
TP1630
R1530 47K
U1431B 74LS00
U1630B 74LS00
U1431D 74LS00
MRK_GATE
Static Sensitive Devices (See Maintenance Section)
COMPONENT NUMBER EXAMPLE
COMPONENT NUMBER
A23 A2 R1234
Assembly Number
Schematic Circuit Number
Subassembly Number (if needed)
Chassis-mounted components have no Assembly Number prefix-see end of Replaceable Electrical Parts List.
U14118 5N75140
C1400 .01
U1431E 74LS00
C1431 .01
U1430B 74LS554
U1530B 74LS590
C1430 .01
C1530 .01
U1531C 74LS390
C1532 .01
C1520 .01
U1521B MK5009P
C1421 .01
U1422C 74LS74
C1420 .01
C1350 .01
U1630E 74LS00
C1531 .01
C1622 .01
P/O A4 TIME MARK BD.
(7746-69)
CG5010/CG5011
COUNT DOWN CIRCUIT
14

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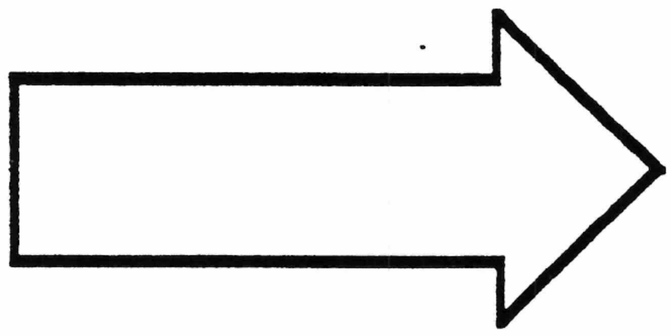
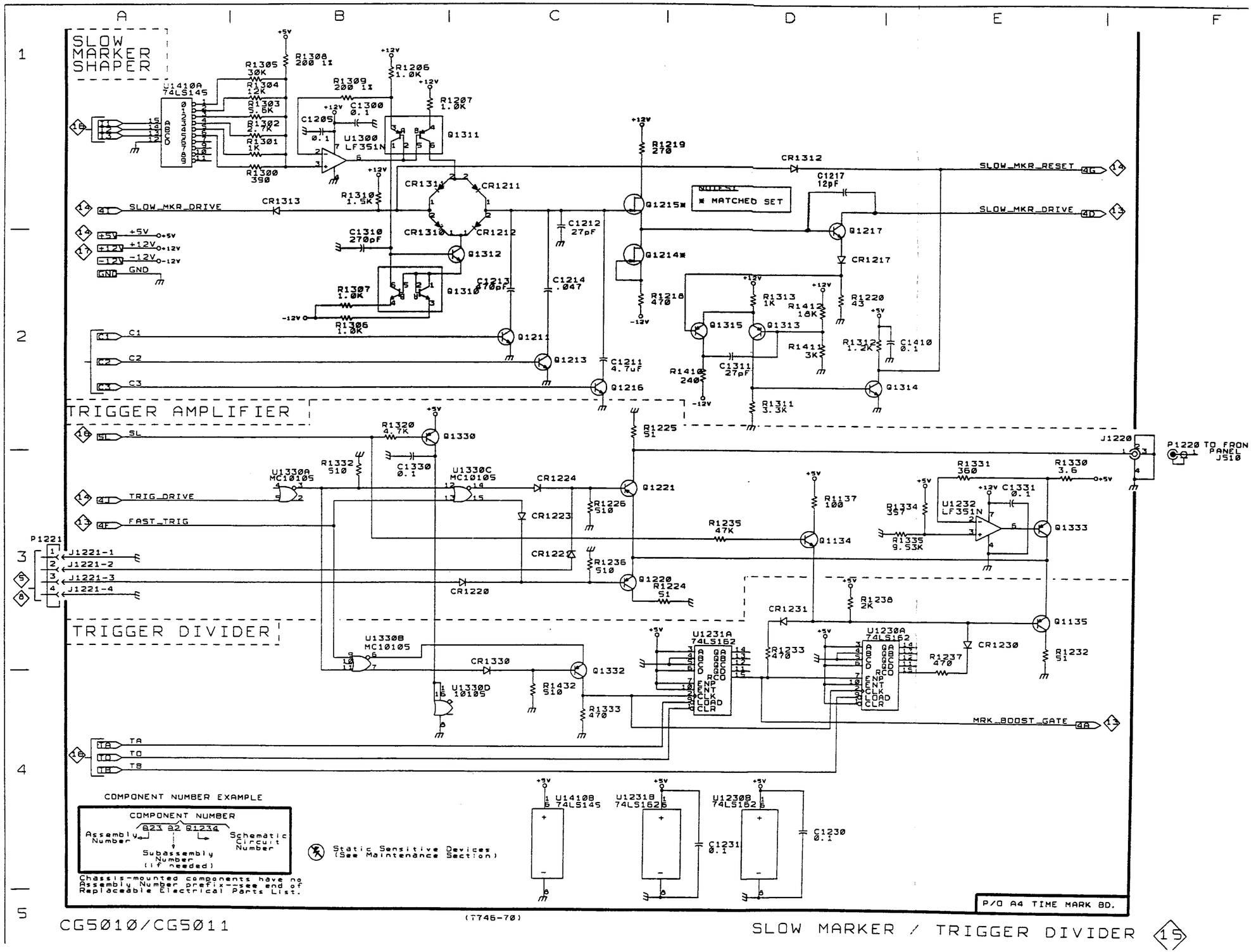


Table 9-16

SLOW MARKER/TRIGGER DIVIDER (15) — TIME MARK BOARD, ASSEMBLY A4

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C1205	B1	E1						
C1211	C 2	D 3	Q1211	C 2	E 2	R1303	B 1	F 2
C1212	C 1	E 3	Q1213	C 2	E 3	R1304	B 1	F 2
C1213	C 2	E 3	Q1214	C 2	D 3	R1305	B 1	F 2
C1214	C 2	E 3	Q1215	C 1	D 3	R1306	B 2	F 2
C1230	D 4	E 5	Q1216	C 2	D 3	R1307	B 2	F 2
C1231	D 4	E 6	Q1217	D 1	E 3	R1308	B 1	F 2
C1300	B 1	F 1	Q1220	C 3	D 4	R1309	B 1	F 2
C1310	B 2	F 3	Q1221	C 3	D 4	R1310	B 1	F 3
C1311	D 2	F 3	Q1310	C 2	F 2	R1311	D 2	F 3
C1330	B 3	F 5	Q1311	C 1	F 2	R1312	D 2	F 3
C1331	E 3	F 6	Q1312	C 2	F 3	R1313	D 2	F 3
C1410	E 2	G 3	Q1313	D 2	F 3	R1320	B 2	F 5
			Q1314	E 2	F 3	R1330	E 3	F 6
CR1211	C 1	E 3	Q1315	D 2	F 3	R1331	E 3	F 6
CR1212	C 2	E 3	Q1330	C 2	E 5	R1332	B 3	F 5
CR1217	D 2	E 3	Q1332	C 4	G 5	R1333	C 4	F 5
CR1220	C 3	E 4	Q1333	E 3	F 5	R1334	E 3	F 6
CR1221	C 3	E 4				R1335	E 3	F 6
CR1223	C 3	E 5	R1137	D 3	C 5	R1410	D 2	G 3
CR1224	C 3	E 5	R1206	B 1	E 2	R1411	D 2	G 3
CR1230	E 3	D 5	R1207	B 1	F 2	R1412	D 2	G 3
CR1231	D 3	D 6	R1218	C 2	E 3	R1432	C 4	G 5
CR1310	B 2	F 3	R1219	C 1	E 3			
CR1311	B 1	F 3	R1220	D 2	E 4	U1230A	D 3	D 5
CR1312	D 1	F 3	R1224	C 3	E 4	U1230B	D 4	D 5
CR1313	B 1	F 3	R1225	C 2	E 4	U1231A	D 3	D 6
CR1330	C 4	F 5	R1226	C 3	D 5	U1231B	C 4	D 6
			R1232	E 3	D 6	U1232	E 3	E 6
J1220	F 2	D 4	R1233	D 3	D 6	U1300	B 1	F 1
J1221	A 3	E 4	R1235	D 3	D 5	U1330A	B 3	F 5
			R1236	C 3	E 5	U1330B	B 3	F 5
P1220	F 2	D 4	R1237	E 3	D 5	U1330C	C 3	F 5
P1221	A 3	E 4	R1238	D 3	D 5	U1330D	C 4	F 5
			R1300	B 1	F 1	U1410A	A 1	G 2
Q1134	D 3	C 5	R1301	B 1	F 1	U1410B	C 4	G 2
Q1135	E 3	C 5	R1302	B 1	F 2			


SLOW MARKER SHAPER
TRIGGER AMPLIFIER
TRIGGER DIVIDER
SLOW_MKR_DRIVE
SLOW_MKR_RESET
TRIG_DRIVE
FAST_TRIG
MRK_BOOST_GATE
SL
TA
TO
TB
C1
C2
C3
+5V
+12V
-12V
GND
* MATCHED SET
P1220 TO FRON PANEL J510
P1221
J1221-1
J1221-2
J1221-3
J1221-4
U1410A 74LS145
U1330A MC10105
U1330B MC10105
U1330C MC10105
U1330D 10105
U1300 LF351N
U1232 LF351N
U1231A 74LS162
U1230A 74LS162
U14108 74LS145
U12318 74LS162
U1230B 74LS162
Q1311
Q1312
Q1310
Q1211
Q1213
Q1216
Q1215*
Q1214*
Q1217
Q1315
Q1313
Q1314
Q1330
Q1221
Q1220
Q1134
Q1333
Q1135
Q1332
CR1211
CR1212
CR1213
CR1217
CR1312
CR1313
CR1224
CR1223
CR1222
CR1220
CR1231
CR1230
R1305 30K
R1304 12K
R1303 5.6K
R1302 2.7K
R1301 1K
R1306 1.0K
R1307 1.0K
R1308 200 1%
R1309 200 1%
R1310 1.5K
R1206 1.0K
R1207 1.0K
R1300 390
R1219 270
R1218 470
R1313 1K
R1412 10K
R1220 43
R1312 1.2K
R1411 3K
R1410 240
R1311 3.3K
R1225 51
R1320 4.7K
R1332 510
R1226 510
R1236 510
R1235 47K
R1137 100
R1224 51
R1238 2K
R1233 470
R1237 470
R1232 51
R1432 510
R1333 470
R1331 360
R1330 3.6
R1334 357
R1335 9.53K
C1300 0.1
C1205 0.1
C1330 0.1
C1331 0.1
C1212 27pF
C1310 270pF
C1213 270pF
C1214 .047
C1211 4.7uF
C1217 12pF
C1311 27pF
C1410 0.1
C1231 0.1
C1230 0.1
COMPONENT NUMBER EXAMPLE
COMPONENT NUMBER
A23 A2 R1234
Assembly Number
Subassembly Number (if needed)
Schematic Circuit Number
Chassis-mounted components have no Assembly Number prefix--see end of Replaceable Electrical Parts List.
Static Sensitive Devices (See Maintenance Section)
P/O A4 TIME MARK BD.
(7746-70)
CG5010/CG5011
SLOW MARKER / TRIGGER DIVIDER
15

SEE
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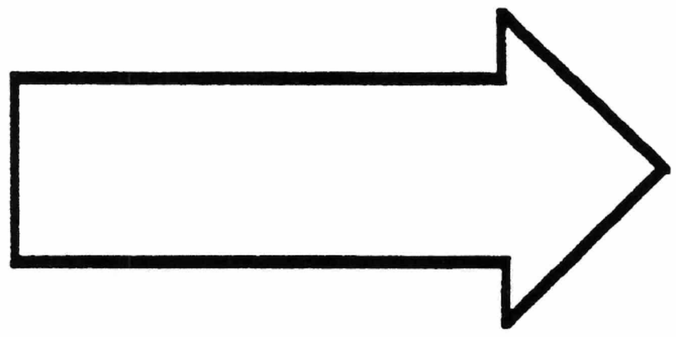


Table 9-17

MARKER DATA REGISTERS & CHOP AMPLIFIER 16
— TIME MARK BOARD, ASSEMBLY A4

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C1210	B 1	E 2
C1220	B 4	D 4
C1411	A 4	G 3
C1621	B 4	J 4
CR1210	D 1	E 2
P1111	A 2,A 3, F 1-F 3	A 2
Q1200	C 1	D 1
Q1201	C 1	E 1
Q1202	C 2	D 2
Q1203	B 2	E 2
Q1204	C 1	E 2
Q1210	B 2	D 2
Q1212	C 1	D 3
R1200	C 1	D 1
R1201	B 1	E 1
R1202	C 1	E 1
R1203	B 1	E 1
R1204	C 2	E 2
R1205	B 2	E 2
R1208	C 2	D 2
R1209	C 1	E 2
R1211	C 2	D 2
R1212	D 1	E 2
R1213	D 1	E 2
R1214	D 1	E 2
R1215	B 1	D 3
R1216	B 2	D 3
R1217	B 2	E 2
R1221	A 3	E 4
R1222	B 3	E 4
R1223	B 3	F 4
R1227	C 1	D 1
R1228	B 1	E 1
TP1200	C 2	D 2
U1120A	B 2	C 4
U1120B	A 3	C 4
U1120C	A 2	C 4
U1120D	B 3	C 4
U1120E	A 4	C 4
U1220A	E 2	D 4
U1220B	E 3	D 4
U1220C	E 2	D 4
U1220D	E 2	D 4
U1220E	B 4	D 4
U1320A	C 3	F 4
U1320B	A 4	F 4
U1420A	C 3	G 4
U1420B	A 4	G 4
U1421A	D 3	H 4
U1421B	B 4	H 4
U1520A	E 3	I 4
U1520B	B 4	I 4

Static Sensitive Devices
(See Maintenance Section)

COMPONENT NUMBER EXAMPLE

COMPONENT NUMBER
A23 A2 R1234
Assembly Number
Subassembly Number (if needed)
Schematic Circuit Number

Chassis-mounted components have no Assembly Number prefix--see end of Replaceable Electrical Parts List.

CHOP AMPLIFIER

+12V R1209 110
+12V R1212 4.3K
CR1210
Q1204
+12V R1201 1K
+12V R1200 1K
R1213 4.3K
Q1200
Q1201
R1214 47K
R1228 910
R1227 910
Q1212
CHOP P1111-10B
CHOP P1111- 9B
CHOP SHIELD P1111- 8B
+12V R1215 3.3K
C1210 27pF
+12V
R1207 75
R1202 75
4K CHOP_DRIVE
R1217 2.4K
Q1210
TP1200
Q1203
Q1202
+12V R1211 7.5K
R1216 3.3K
R1205 750
R1204 560
R1208 3K

TS2 ERROR GATES

4H TEST_SIG
EXT EXT
P1111-14B
U1220A 74LS03
P1111-13B
U1220C 74LS03
P1111-12B

+5V R1222 2.2K
U1120A 74LS08
U1120C 74LS08
P1111-15A DATA CLK
R1223 2.2K
+5V R1221 2.2K
U1120D 74LS08
U1120B 74LS08
P1111-15B DATA
P1111-14A
U1320A 4094
U1420A 4094
U1421A 4094
U1520A 4094
+5V U1220D 74LS03
P1111-12A
U1220B 74LS03
P1111-13A

MARKER DATA REGISTER

+12V +12V
+5V +5V
GND GND

U1320B 4094
U1420B 4094
U1421B 4094
U1520B 4094
C1411 0.1
C1521 0.1
U1120E 74LS08
U1220E 74LS03
C1220 0.01

A3
MKR
CHOP
SI
800ST

P/O A4 TIME MARK BD.

(7746-71)

CG5010/CG5011 MARKER DATA REGISTERS & CHOP AMPLIFIER 15

SEE
OTHER
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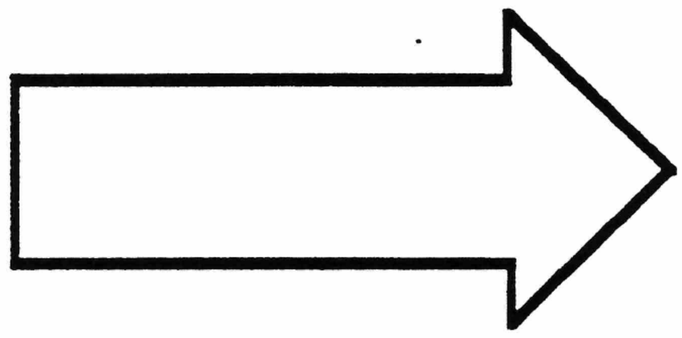
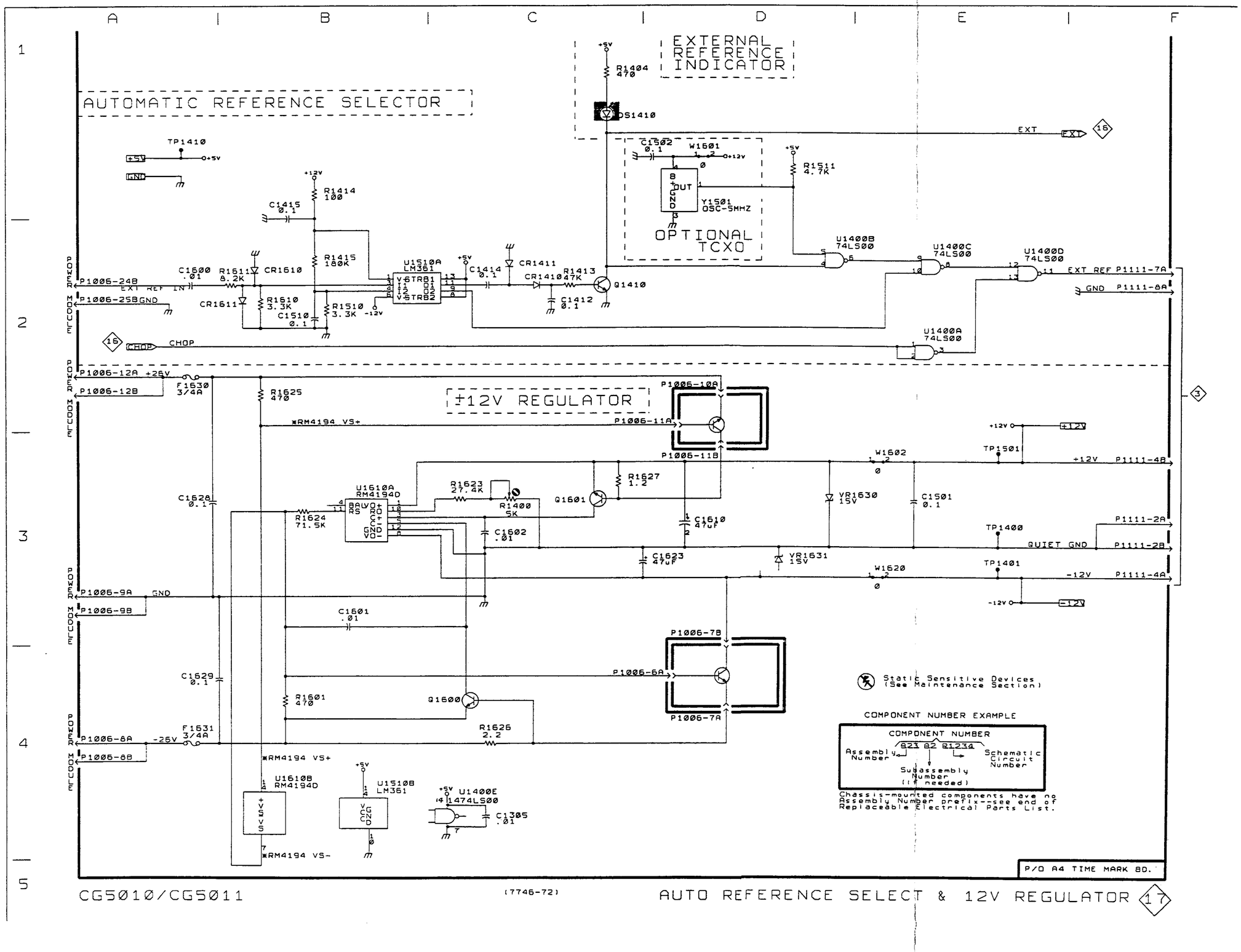


Table 9-18

AUTO REFERENCE SELECT & 12V REGULATOR (17)
— TIME MARK BOARD, ASSEMBLY A4

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C1305	C5	G1
C1412	C 2	H 3
C1414	C 2	H 3
C1415	B 1	H 3
C1501	E 3	H 2
C1502	D 1	J 1
C1510	B 2	I 3
C1600	A 2	K 1
C1601	B 3	K 2
C1602	C 3	K 2
C1610	D 3	K 2
C1623	D 3	K 4
C1628	A 3	K 4
C1629	A 4	K 5
CR1410	C 2	H 3
CR1411	C 2	H 3
CR1610	B 2	J 3
CR1611	B 2	J 3
DS1410	C 1	H 2
F1630	A 2	J 5
F1631	A 4	K 5
P1006	A 2-A 4, D 2-D 4	L 4
P1111	F 2,F 3	A 2
Q1410	C 2	H 3
Q1600	C 4	K 1
Q1601	C 3	K 1
R1400	C 3	H 1
R1404	C 1	G 2
R1413	C 2	H 3
R1414	B 1	H 3
R1415	B 2	H 3
R1510	B 2	H 3
R1511	D 1	H 2
R1601	B 4	K 2
R1610	B 2	J 3
R1611	B 2	J 3
R1623	C 3	K 3
R1624	B 3	K 3
R1625	B 2	K 4
R1626	C 4	K 4
R1627	C 3	K 4
TP1400	E 3	G 1
TP1401	E 3	H 1
TP1410	A 1	H 2
TP1501	E 3	H 1
U1400A	E 2	G 1
U1400B	D 2	G 1
U1400C	E 2	G 1
U1400D	E 2	G 1
U1400E	C 4	G 1
U1510A	B 2	I 3
U1510B	B 4	I 3
U1610A	B 3	K 3
U1610B	B 4	K 3
VR1630	D 3	K 5
VR1631	D 3	K 5
W1601	D 1	J 1
W1602	E 3	K 1
W1620	E 3	J 3
Y1501	D 1	J 2



CG5010/CG5011 (7746-72) AUTO REFERENCE SELECT & 12V REGULATOR 17

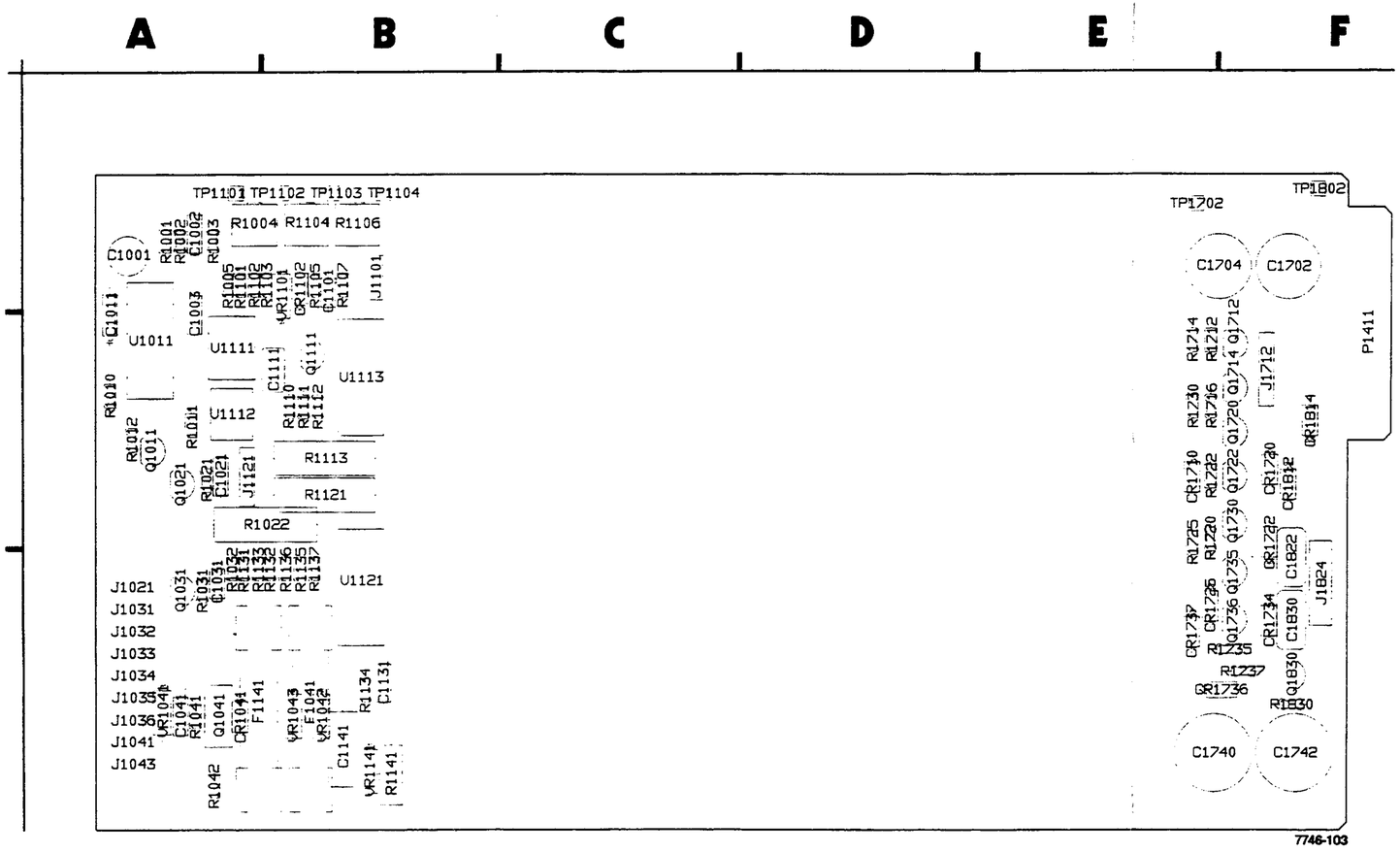


Fig. 9-53. PS Main Board (A5).

SEE
OTHER
SIDE

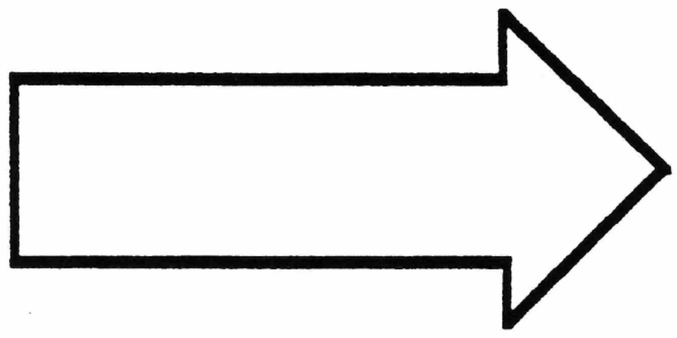
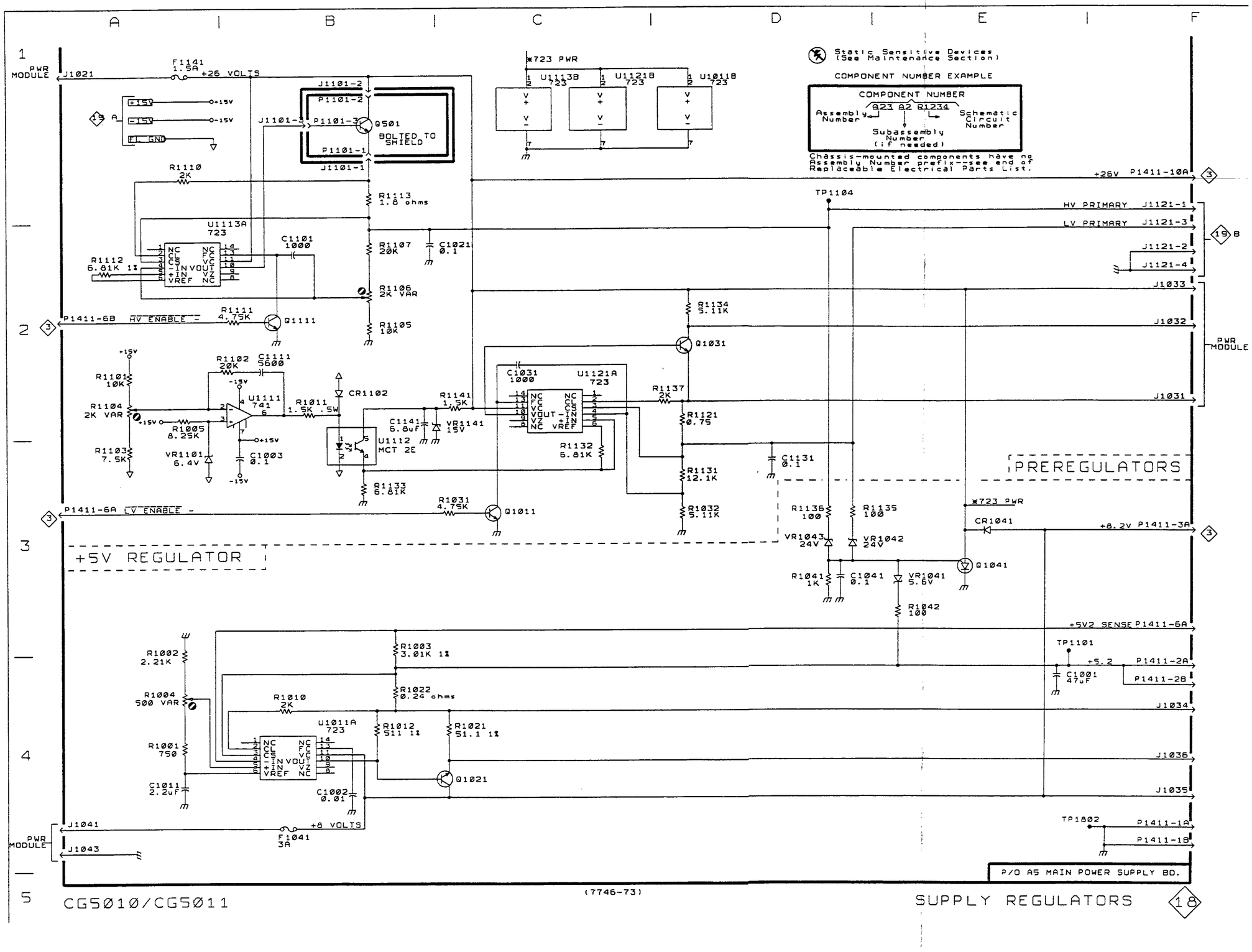


Table 9-19

SUPPLY REGULATORS (18) — MAIN POWER SUPPLY BOARD, ASSEMBLY A5

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C1001	E 4	A 1	Q501	B 1	CHASSIS	R1131	D 3	A 3
C1002	B 4	A 1	Q1011	C 3	A 2	R1132	C 3	B 3
C1003	B 3	A 2	Q1021	C 4	A 2	R1133	B 3	A 3
C1011	A 4	A 2	Q1031	D 2	A 3	R1134	D 2	B 3
C1021	C 2	A 2	Q1041	E 3	B 3	R1135	D 3	B 3
C1031	C 2	A 3	Q1111	B 2	B 2	R1136	D 3	B 3
C1041	D 3	A 3				R1137	D 2	B 3
C1101	B 2	B 1	R1001	A 4	A 1	R1141	C 2	B 3
C1111	B 2	B 2	R1002	A 3	A 1			
C1131	D 3	B 3	R1003	B 3	A 1	TP1101	E 3	A 1
C1141	B 2	B 3	R1004	A 4	A 1	TP1104	D 1	B 1
			R1005	A 2	A 1	TP1802	F 4	F 1
CR1041	E 3	A 3	R1010	B 4	A 2			
CR1102	B 2	B 1	R1011	B 2	A 2	U1011A	B 4	A 2
			R1012	B 4	A 2	U1011B	D 1	A 2
F1041	B 4	B 3	R1021	C 4	A 2	U1111	B 2	A 2
F1141	A 1	A 3	R1022	B 4	B 2	U1112	B 3	A 2
			R1031	C 3	A 3	U1113A	A 1	B 2
J1021	A 1	A 3	R1032	D 3	A 3	U1113B	C 1	B 2
J1031	F 2	A 3	R1041	D 3	A 3	U1121A	C 2	B 3
J1032	F 2	A 3	R1042	E 3	A 3	U1121B	D 1	B 3
J1033	F 2	A 3	R1101	A 2	A 1			
J1034	F 4	A 3	R1102	B 2	A 1	VR1041	E 3	A 3
J1035	F 4	A 3	R1103	A 3	B 1	VR1042	D 3	B 3
J1036	F 4	A 3	R1104	A 2	B 1	VR1043	D 3	B 3
J1041	A 4	A 3	R1105	B 2	B 1	VR1101	A 3	B 1
J1043	A 4	A 3	R1106	B 2	B 1	VR1141	C 2	B 3
J1101	B 1	B 1	R1107	B 2	B 1			
J1121	F 1,F 2	A 2	R1110	A 1	B 2			
			R1111	B 2	B 2			
P1101	B 1	CHASSIS	R1112	A 2	B 2			
P1411	A 2,A 3,F 1, F 3,F 4	F 2	R1113	B 1	B 2			
			R1121	D 2	B 2			


A
B
C
D
E
F
1
2
3
4
5
PWR MODULE
J1021
F1141 1.5A
+26 VOLTS
+15V
-15V
P1 GND
J1101-2
P1101-2
J1101-3
P1101-3
Q501
BOLTED TO SHIELD
P1101-1
J1101-1
*723 PWR
U1113B 723
U1121B 723
U1011B 723
Static Sensitive Devices (See Maintenance Section)
COMPONENT NUMBER EXAMPLE
COMPONENT NUMBER
A23 A2 R1234
Assembly Number
Schematic Circuit Number
Subassembly Number (if needed)
Chassis-mounted components have no Assembly Number prefix-see end of Replaceable Electrical Parts List.
R1110 2K
R1113 1.8 ohms
U1113A 723
C1101 1000
R1112 6.81K 1%
R1107 20K
C1021 0.1
R1106 2K VAR
R1105 10K
R1111 4.75K
Q1111
P1411-6B HV ENABLE -
+26V P1411-10A
TP1104
HV PRIMARY J1121-1
LV PRIMARY J1121-3
J1121-2
J1121-4
J1033
J1032
J1031
PWR MODULE
R1134 5.11K
Q1031
R1137 2K
R1121 0.75
C1031 1000
U1121A 723
R1132 6.81K
C1131 0.1
R1131 12.1K
R1032 5.11K
PREREGULATORS
R1101 10K
R1104 2K VAR
R1103 7.5K
R1102 20K
C1111 5600
U1111 741
R1011 1.5K .5W
R1005 8.25K
VR1101 6.4V
C1003 0.1
CR1102
U1112 MCT 2E
R1141 1.5K
C1141 6.8uF
VR1141 15V
R1133 6.81K
P1411-6A LV ENABLE -
R1031 4.75K
Q1011
R1136 100
R1135 100
VR1043 24V
VR1042 24V
*723 PWR
CR1041
+8.2V P1411-3A
Q1041
R1041 1K
C1041 0.1
VR1041 5.6V
R1042 100
+5V REGULATOR
+5V2 SENSE P1411-6A
R1002 2.21K
R1003 3.01K 1%
TP1101
+5.2
P1411-2A
P1411-2B
C1001 47uF
R1004 500 VAR
R1010 2K
R1022 0.24 ohms
J1034
R1001 750
U1011A 723
R1012 511 1%
R1021 51.1 1%
J1036
Q1021
C1011 2.2uF
C1002 0.01
J1035
J1041
PWR MODULE
J1043
+8 VOLTS
F1041 3A
TP1802
P1411-1A
P1411-1B
P/O A5 MAIN POWER SUPPLY BD.
(7746-73)
CG5010/CG5011
SUPPLY REGULATORS
18

SEE
OTHER
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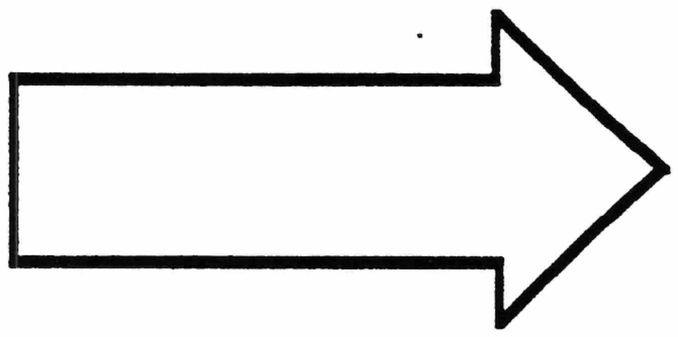
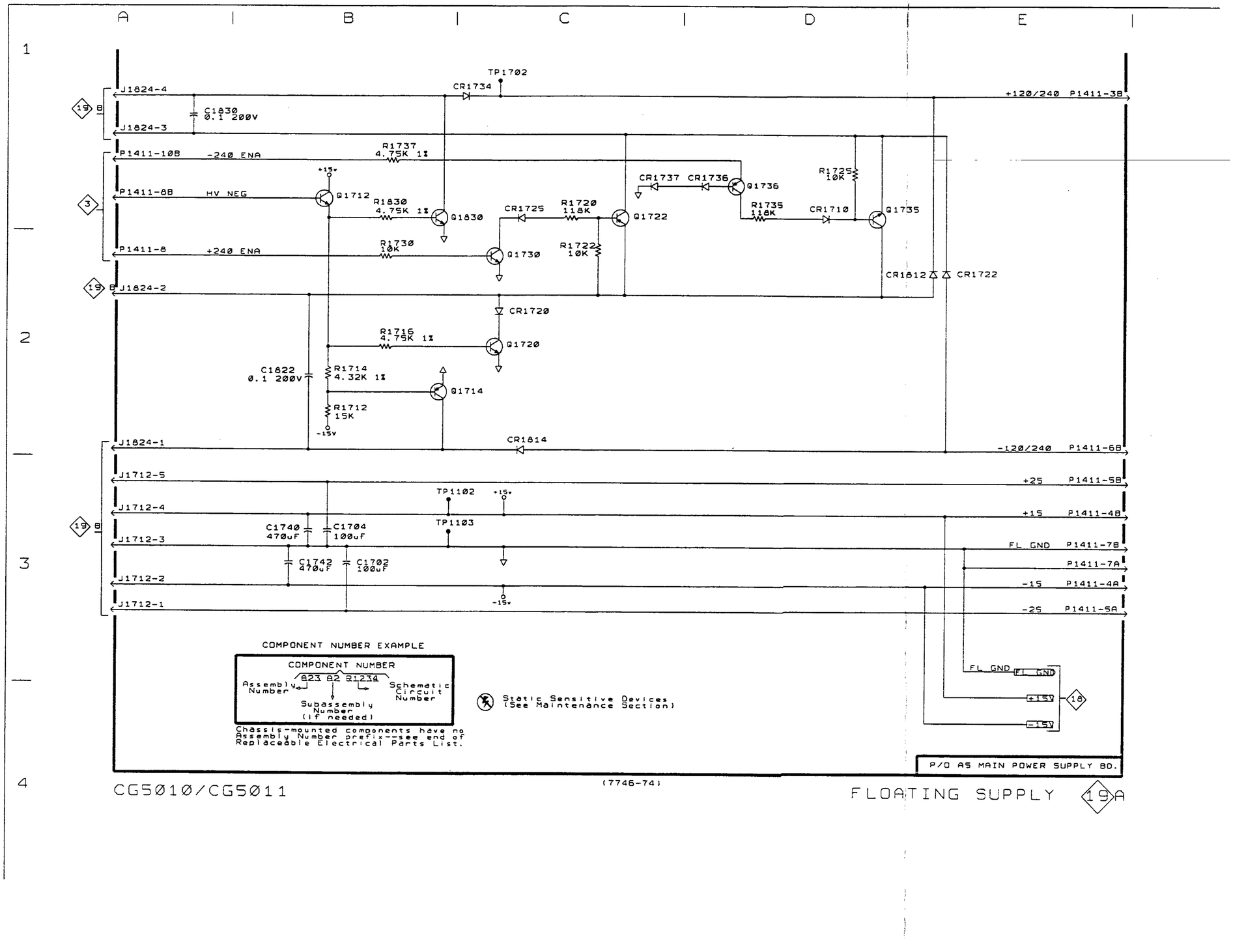


Table 9-20

FLOATING SUPPLY (9A) — MAIN POWER SUPPLY BOARD, ASSEMBLY A5

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C1702	B 3	F 1	Q1712	B 1	F 2
C1704	B 3	E 1	Q1714	B 1	F 2
C1740	B 3	E 3	Q1720	C 2	F 2
C1742	B 3	F 3	Q1722	C 1	F 2
C1822	B 2	F 3	Q1730	C 2	F 2
C1830	A 1	F 3	Q1735	D 1	F 3
			Q1736	D 1	F 3
CR1710	D 1	E 2	Q1830	B 1	F 3
CR1720	C 2	F 2			
CR1722	E 2	F 2	R1712	B 2	E 2
CR1725	C 1	E 3	R1714	B 2	E 2
CR1734	C 1	F 3	R1716	B 2	E 2
CR1736	D 1	F 3	R1720	C 1	E 2
CR1737	C 1	E 3	R1722	C 2	E 2
CR1812	E 2	F 2	R1725	D 1	E 2
CR1814	C 2	F 2	R1730	B 2	E 2
			R1735	D 1	F 3
J1712	A 3	F 2	R1737	B 1	F 3
J1824	A 1,A 2	F 3	R1830	B 1	F 3
P1411	A 1,A 2, E 1-E 3	CHASSIS	TP1102	B 3	B 1
			TP1103	B 3	B 1
			TP1702	C 1	E 1


A
B
C
D
E
1
2
3
4
J1824-4
J1824-3
J1824-2
J1824-1
J1712-5
J1712-4
J1712-3
J1712-2
J1712-1
19 B
C1830 0.1 200V
TP1702
CR1734
+120/240 P1411-3B
P1411-10B -240 ENA
R1737 4.75K 1%
P1411-8B HV NEG
+15v
Q1712
R1830 4.75K 1%
Q1830
CR1737 CR1736
Q1736
R1725 10K
R1735 11BK
CR1710
Q1735
CR1725
R1720 11BK
Q1722
3
P1411-8 +240 ENA
R1730 10K
Q1730
R1722 10K
CR1812 CR1722
CR1720
R1716 4.75K 1%
Q1720
C1822 0.1 200V
R1714 4.32K 1%
Q1714
R1712 15K
-15v
CR1814
-120/240 P1411-6B
+25 P1411-5B
TP1102
+15v
TP1103
+15 P1411-4B
C1740 470uF
C1704 100uF
FL GND P1411-7B
P1411-7A
C1742 470uF
C1702 100uF
-15 P1411-4A
-25 P1411-5A
FL GND
FL GND
+15V
-15V
18
COMPONENT NUMBER EXAMPLE
COMPONENT NUMBER
A23 A2 R1234
Assembly Number
Subassembly Number (if needed)
Schematic Circuit Number
Chassis-mounted components have no assembly number prefix--see end of Replaceable Electrical Parts List.
Static Sensitive Devices (See Maintenance Section)
P/O A5 MAIN POWER SUPPLY BD.
(7746-74)
CG5010/CG5011
FLOATING SUPPLY
19A

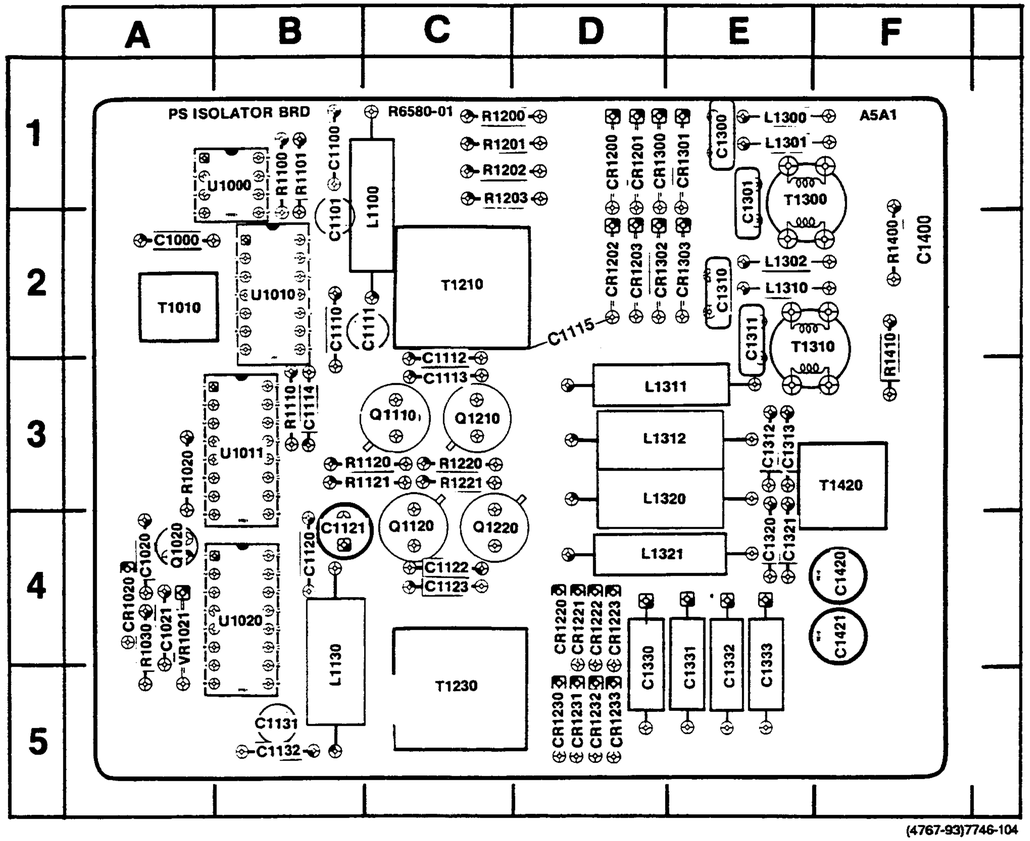


Fig. 9-54. PS Isolator Board (A5A1).

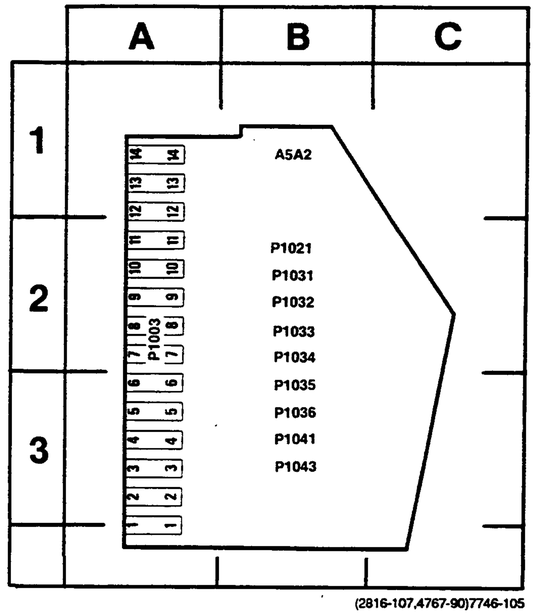


Fig. 9-55. PS Interface Board (A5A2).

SEE
OTHER
SIDE

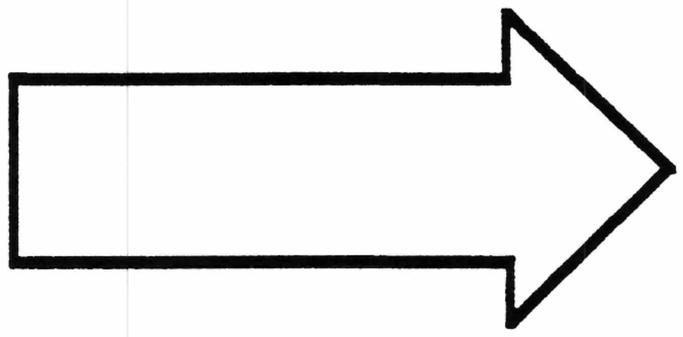
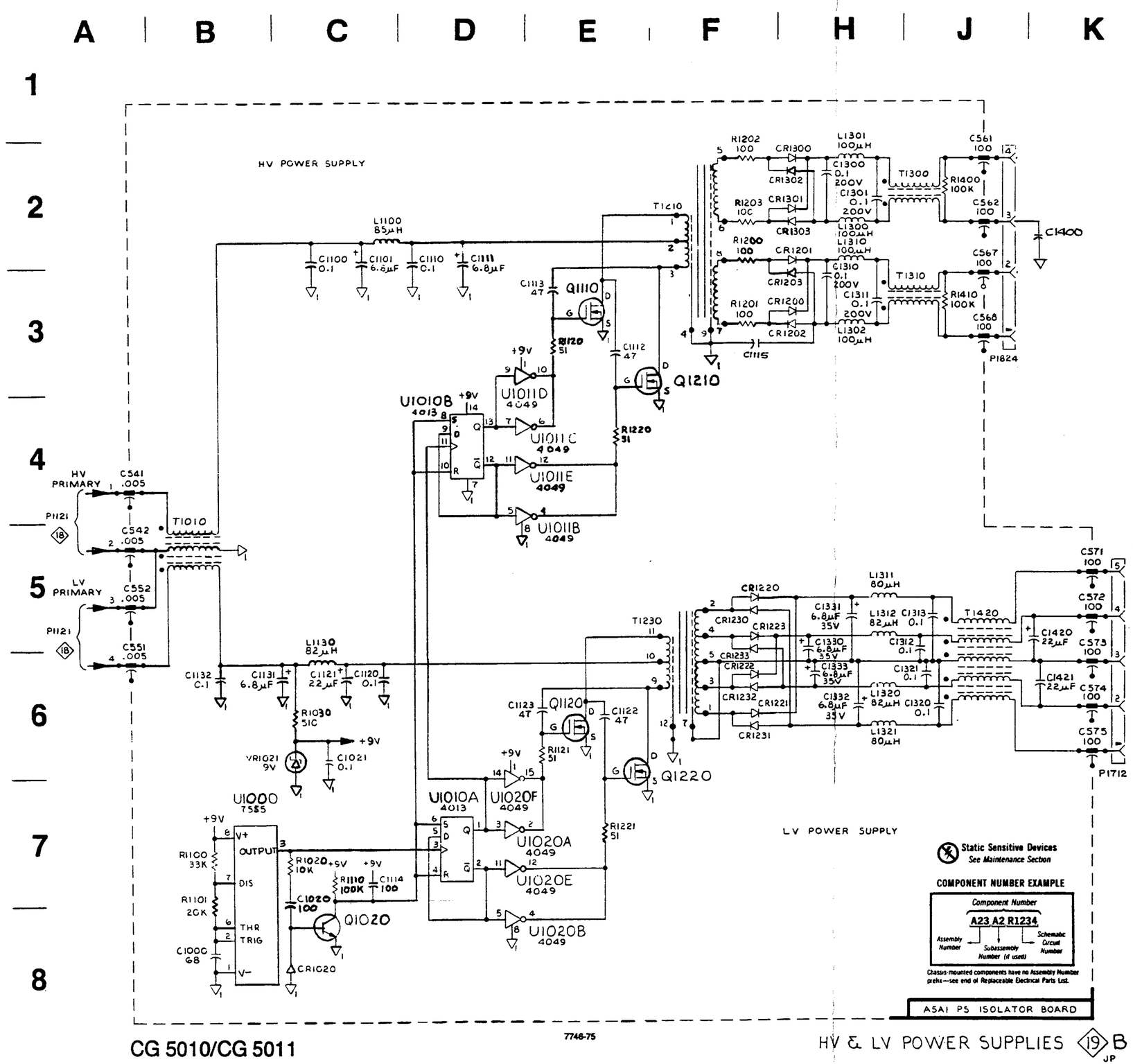


Table 9-21

HV & LV POWER SUPPLIES 19B — ISOLATOR BOARD, ASSEMBLY A5A1

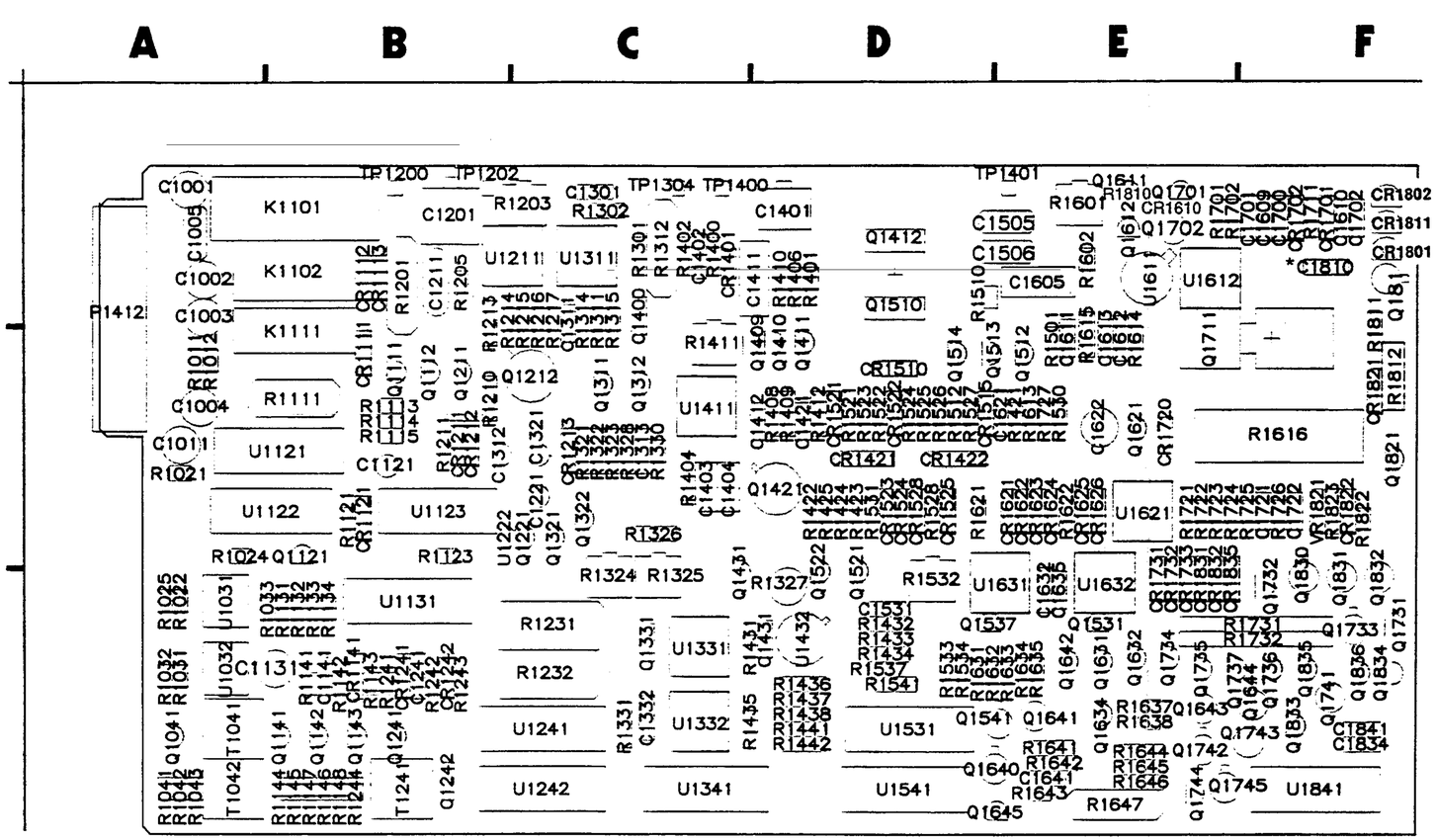
CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C1000	B 8	A 2
C1020	C 7	A 4
C1021	C 6	B 3
C1100	C 2	B 1
C1101	C 2	B 1
C1110	D 2	B 2
C1111	D 2	B 2
C1112	E 3	C 2
C1113	E 3	C 3
C1114	C 7	B 3
C1115	F3	D2
C1120	C 6	B 4
C1121	C 6	B 4
C1122	E 6	C 4
C1123	E 6	C 4
C1131	B 6	B 5
C1132	B 6	B 5
C1300	H 2	E 1
C1301	H 2	E 1
C1310	H 3	E 2
C1311	H 3	E 2
C1312	J 6	E 2
C1313	J 5	E 3
C1320	J 6	E 4
C1321	J 6	E 4
C1330	H 5	D 4
C1331	H 5	E 4
C1332	H 6	E 4
C1333	H 6	E 4
C1400	K2	F2
C1420	K 5	F 4
C1421	K 6	F 4
CR1020	C 8	A 4
CR1200	H 3	D 1
CR1201	H 2	D 1
CR1202	H 3	D 2
CR1203	H 2	D 2
CR1220	F 5	D 4
CR1221	F 6	D 4
CR1222	F 6	D 4
CR1223	F 5	D 4
CR1230	F 5	D 5
CR1231	F 6	D 5
CR1232	F 6	D 5
CR1233	F 5	D 5
CR1300	H 2	D 1
CR1301	H 2	E 1
CR1302	H 2	D 2
CR1303	H 2	E 2
L1100	C 2	C 1
L1130	C 6	B 4
L1300	H 2	E 1
L1301	H 2	E 1
L1302	H 3	E 2
L1310	H 2	E 2
L1311	H 5	D 3
L1312	H 5	D 3
L1320	H 6	D 3
L1321	H 6	D 4
Q1020	C 8	A 4
Q1110	E 2	C 3
Q1120	E 6	C 4
Q1210	F 3	C 3
Q1220	E 6	C 4
R1020	C 7	A 3
R1030	C 6	A 4
R1100	B 7	B 1
R1101	B 7	B 2
R1110	C 7	B 3
R1120	E 3	C 3
R1121	E 6	C 3
R1200	F 2	C 1
R1201	F 3	C 1
R1202	F 2	C 1
R1203	F 2	C 1
R1220	E 4	C 3
R1221	E 7	C 3
R1400	J 2	F 2
R1410	J 3	F 2
T1010	B 5	A 2
T1210	F 2	C 2
T1230	F 6	C 5
T1300	J 2	E 1
T1310	J 3	E 2
T1420	J 5	F 3
U1000	B 7	B 1
U1010A	D 7	B 2
U1010B	D 4	B 2
U1011B	D 4	B 3
U1011C	D 4	B 3
U1011D	D 3	B 3
U1011E	D 4	B 3
U1020A	D 7	B 4
U1020B	D 8	B 4
U1020E	D 7	B 4
U1020F	D 6	B 4
VR1021	C 6	A 4



7748-75

CG 5010/CG 5011

HV & LV POWER SUPPLIES 19 B JP



A6

Fig. 9-56. Reference Board (A6).

SEE
OTHER
SIDE

Table 9-22

PROGRAMMABLE REF. & DATA ISOLATORS — REFERENCE BOARD, ASSEMBLY A6 (20)

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C1001	B 3	A 1
C1002	A 4	A 1
C1003	A 4	A 1
C1004	A 3	A 2
C1011	A 3	A 2
C1141	B 2	B 3
C1221	B 4	C 2
C1241	A 2	B 3
C1242	C 4	B 3
C1331	E 2	C 3
C1332	E 1	C 3
C1431	E 2	D 3
CR1141	B 2	B 3
CR1241	B 2	B 3
CR1242	B 3	B 3
P1412	A 3,A 4,F 3	A 1
Q1041	B 1	A 3
Q1141	B 2	B 3
Q1142	C 1	B 3
Q1143	B 1	B 3
Q1241	B 3	B 3
Q1431	F 2	C 3
R1041	B 1	A 3
R1042	B 1	A 3
R1043	B 1	A 3
R1141	B 2	B 3
R1142	B 2	B 3
R1143	C 2	B 3
R1144	B 2	B 3
R1145	B 1	B 3
R1146	C 1	B 3
R1147	C 1	B 3
R1148	C 1	B 3
R1231	E 1	C 3
R1232	E 2	C 3
R1241	B 2	B 3
R1242	A 3	B 3
R1243	C 3	B 3
R1244	C 1	B 3
R1324	E 2	C 3
R1325	F 2	C 3
R1326	E 2	C 2
R1327	E 2	D 3
R1331	E 2	C 3
R1431	E 2	C 3
R1435	E 1	C 3
T1041	B 2	A 3
T1042	B 1	A 3
T1241	B 3	B 3
TP1304	F 1	C 1
TP1400	E 3	C 1
U1122E	F 4	B 2
U1222	B 4	B 2
U1241A	E 1	C 3
U1241B	E 3	C 3
U1242A	D 1	C 3
U1242B	D 3	C 3
U1331	E 2	C 3
U1332	E 1	C 3
U1341A	D 3	C 3
U1341B	D 3	C 3
U1432	E 2	D 3

A | B | C | D | E | F

1

DATA ISOLATORS

PARTIAL FLOATING DATA REGISTER

PROGRAMMABLE VOLTAGE REFERENCE (DAC)

22 A DATA ISO — R1041 3.01K — R1042 5.11K — +5.2V2 — Q1041 — R1043 392 — T1042 — R1144 475 — R1145 3.01K — Q1142 — Q1143 — +5V — R1146 10K — R1147 5.11K — R1148 3.32K — R1244 5.11K

22 A CCC — R1142 7.5K — C1141 .01 — Q1141 — R1141 10K — T1041 — CR1141 — R1143 475

22 A HHH — R1242 2.74K — C1241 .001 — CR1241 — R1241 3.32K — Q1241 — T1241 — CR1242 — R1243 475 1%

C1005 1.0uF

U1242A 4094 — STR D Q CLK OE

U1241A AD7533 — FDBK VREF IOUT1 IOUT2 — REF OUT — 21 — TP1304

U1332 LM308AJ — C1332 270pF — R1435 12.1K — R1231 9.9K .01% — R1324 250 VAR DAC GAIN — R1326 56.2 TO 4K .01% — R1327 — R1325 50 VAR DAC OFFSET

C1331 0.1 — U1331 LM308AJ — Q1431 — R1331 240 T2 — R1232 — R1431 2.21K

U1432 ADSIL — TP1400 — C1431 0.1

CUR CHP ENBL — CURCHPENBL — 22 A
SAC CHP ENBL — SACCHPENBL — 21
-240 ENA — P1412-10A
EDGE CHP ENBL- — P1412-9B
+240 ENBL — P1412-2A
HV NEG — P1412-3A — 3

U1341A 4094

REF DATA — REF CLK — REF STROBE — 21

3 — P1412-2B +5.2V2 — C1001 6.8uF — +5.2V2
P1412-1B
P1412-1A GND — GND
P1412-14A LOGIC GND
P1412-5B +25V — C1011 6.8uF — +25V — 21
C1004 6.8uF
P1412-5A -25V — -25V — 22 B
+15V
P1412-4B +15V — C1003 6.8uF — U1222 7805 VI G VO — +5V — C1221 1.0 — 22 A
P1412-7A FL GND — C1002 6.8uF — GND-FL
P1412-4A -15V — -15V

U12428 4094 — C1242 0.1
U1341B 4094
U12418 AD7533
U1122E 14 74LS03

Static Sensitive Devices (See Maintenance Section)

COMPONENT NUMBER EXAMPLE

COMPONENT NUMBER: A23 A2 R1234 — Assembly Number — Subassembly Number (If needed) — Schematic Circuit Number

Chassis-mounted components have no Assembly Number prefix-see end of Replaceable Electrical Parts List.

P/O A6 REFERENCE BD.

CG5010/CG5011

(7746-76)

PROGRAMMABLE REF. & DATA ISOLATORS 20

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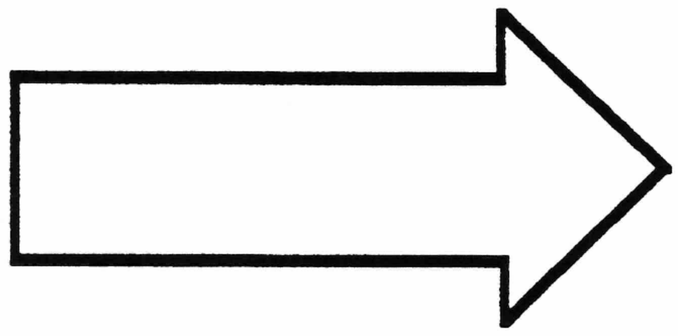
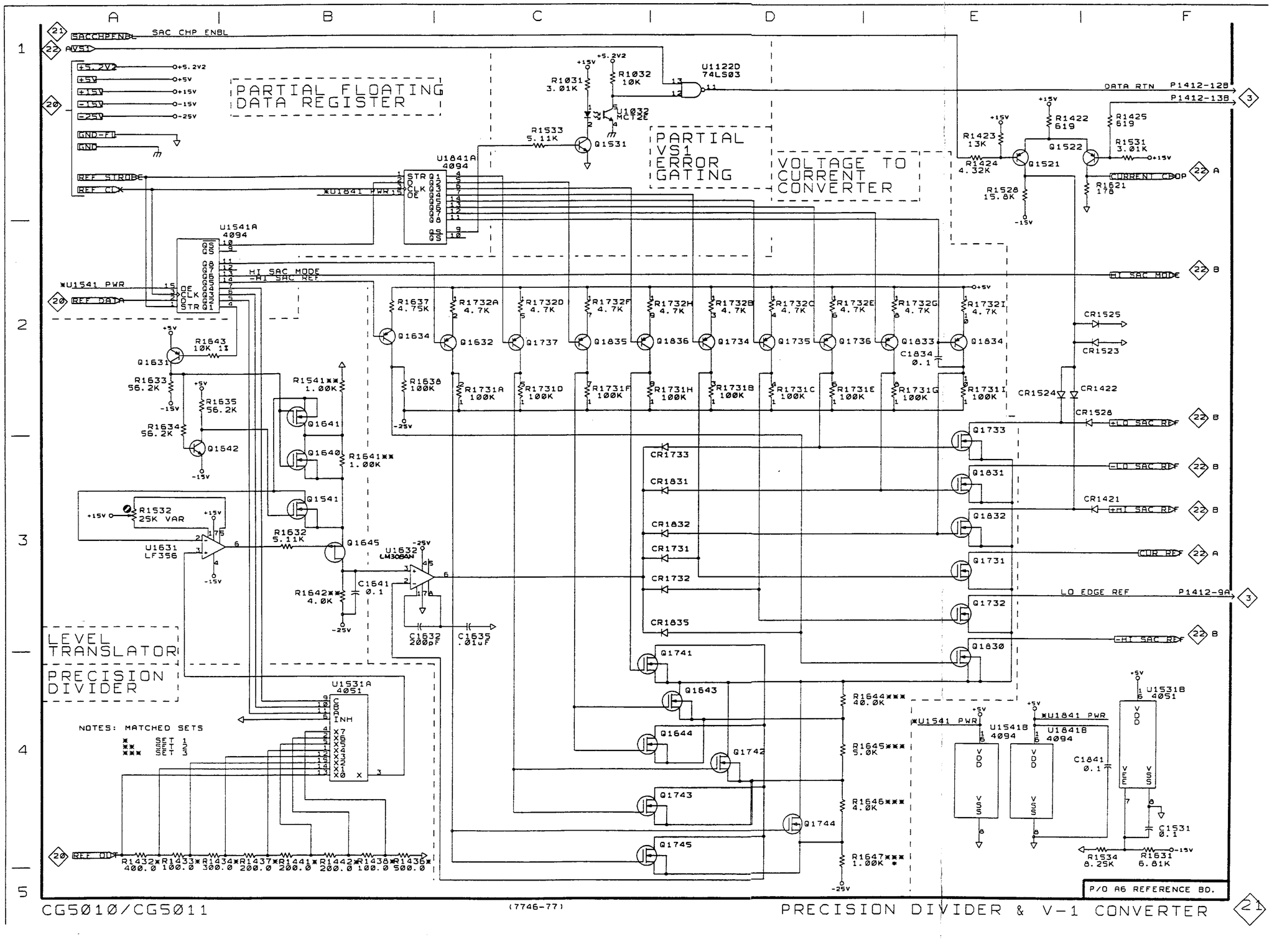


Table 9-23

PRECISION DIVIDER & V - 1 CONVERTER (21) — REFERENCE BOARD, ASSEMBLY A6

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C1531	F 4	D 3	Q1642	A 3	E 3	R1432	A 4	D 3	R1731B	D 2	F 3
C1632	B 3	E 3	Q1643	D 4	E 3	R1433	A 4	D 3	R1731C	D 2	F 3
C1641	B 3	E 3	Q1644	D 4	F 3	R1434	A 4	D 3	R1731D	C 2	F 3
C1834	E 2	F 3	Q1645	B 3	D 3	R1436	B 4	D 3	R1731E	D 2	F 3
C1841	F 4	F 3	Q1731	E 3	F 3	R1437	B 4	D 3	R1731F	C 2	F 3
			Q1732	E 3	F 3	R1438	B 4	D 3	R1731G	E 2	F 3
CR1421	F 3	D 2	Q1733	E 2	F 3	R1441	B 4	D 3	R1731H	D 2	F 3
CR1422	E 2	D 2	Q1734	D 2	E 3	R1442	B 4	D 3	R1731I	E 2	F 3
CR1523	F 2	D 2	Q1735	D 2	E 3	R1528	E 1	D 2	R1732A	C 2	F 3
CR1524	E 2	D 2	Q1736	D 2	F 3	R1531	F 1	D 2	R1732B	D 2	F 3
CR1525	F 2	D 2	Q1737	C 2	E 3	R1532	A 3	D 3	R1732C	D 2	F 3
CR1528	F 2	D 2	Q1741	D 4	F 3	R1533	C 1	D 3	R1732D	C 2	F 3
CR1731	D 3	E 3	Q1742	D 4	E 3	R1534	F 4	D 3	R1732E	D 2	F 3
CR1732	D 3	E 3	Q1743	D 4	F 3	R1541	B 2	D 3	R1732F	C 2	F 3
CR1733	D 3	E 3	Q1744	D 4	E 3	R1621	F 1	D2	R1732G	E 2	F 3
CR1831	D 3	E 3	Q1745	D 4	E 3	R1631	F 4	D 3	R1732H	D 2	F 3
CR1832	D 3	E 3	Q1830	E 3	F 3	R1632	B 3	D 3	R1732I	E 2	F 3
CR1835	D 3	E 3	Q1831	E 3	F 3	R1633	A 2	E 3			
			Q1832	E 3	F 3	R1634	A 2	E 3	U1032	C 1	A 3
P1412	F 1,F 3	A 1	Q1833	E 2	F 3	R1635	A 2	E 3	U1122D	D 1	B 2
			Q1834	E 2	F 3	R1637	B 2	E 3	U1531A	B 4	D 3
Q1521	E 1	D 3	Q1835	C 2	F 3	R1638	B 2	E 3	U1531B	F 4	D 3
Q1522	E 1	D 3	Q1836	D 2	F 3	R1641	B 3	E 3	U1541A	A 2	D 3
Q1531	C 1	E 3				R1642	B 3	E 3	U1541B	E 4	D 3
Q1541	B 3	D 3	R1031	C 1	A 3	R1643	A 2	E 3	U1631	A 3	E 3
Q1631	A 2	E 3	R1032	C 1	A 3	R1644	D 4	E 3	U1632	B 3	E 3
Q1632	C 2	E 3	R1422	E 1	D 2	R1645	D 4	E 3	U1841A	C 1	F 3
Q1634	B 2	E 3	R1423	E 1	D 2	R1646	D 4	E 3	U1841B	E 4	F 3
Q1640	B 3	D 3	R1424	E 1	D 2	R1647	D 4	E 3			
Q1641	B 2	E 3	R1425	F 1	D 2	R1731A	C 2	F 3			


SACCHPFNBL
SAC CHP ENBL
AVS1
+5.2V2
+5V
+15V
-15V
-25V
GND-FI
GND
REF STROBE
REF CLK
REF DATA
*U1541 PWR
*U1841 PWR
PARTIAL FLOATING DATA REGISTER
PARTIAL VS1 ERROR GATING
VOLTAGE TO CURRENT CONVERTER
LEVEL TRANSLATOR
PRECISION DIVIDER
U1841A 4094
U1541A 4094
U1122D 74LS03
U1032 MCT2E
Q1531
R1533 5.11K
R1031 3.01K
R1032 10K
DATA RTN
P1412-12B
P1412-13B
R1423 13K
R1424 4.32K
R1422 619
R1425 619
R1531 3.01K
Q1521
Q1522
R1528 15.8K
R1621 178
CURRENT CORR
HI SAC MODE
-HI SAC REF
R1637 4.75K
R1732A 4.7K
R1732D 4.7K
R1732F 4.7K
R1732H 4.7K
R1732B 4.7K
R1732C 4.7K
R1732E 4.7K
R1732G 4.7K
R1732I 4.7K
Q1634
Q1632
Q1737
Q1635
Q1636
Q1734
Q1735
Q1736
Q1633
Q1834
C1834 0.1
R1638 100K
R1731A 100K
R1731D 100K
R1731F 100K
R1731H 100K
R1731B 100K
R1731C 100K
R1731E 100K
R1731G 100K
R1731I 100K
CR1525
CR1523
CR1524
CR1422
CR1526
+LO SAC REF
-LO SAC REF
+HI SAC REF
CUR REF
LO EDGE REF
P1412-9A
-HI SAC REF
R1643 10K 1%
Q1631
R1633 56.2K
R1635 56.2K
R1634 56.2K
Q1642
R1541** 1.00K
Q1641
Q1640
R1541** 1.00K
Q1541
R1532 25K VAR
U1631 LF356
R1632 5.11K
Q1645
U1632 LM308AH
R1642** 4.0K
C1641 0.1
C1632 200pF
C1635 .01uF
NOTES: MATCHED SETS
* RATIO 1
** RATIO 2
*** RATIO 3
U1531A 4051
INH
REF OUT
R1432* 400.0
R1433* 100.0
R1434* 300.0
R1437* 200.0
R1441* 200.0
R1442* 200.0
R1436* 100.0
R1435* 500.0
CR1733
CR1831
CR1832
CR1731
CR1732
CR1835
Q1733
Q1831
Q1832
Q1731
Q1732
Q1830
Q1741
Q1643
Q1644
Q1742
Q1743
Q1744
Q1745
R1644*** 40.0K
R1645*** 5.0K
R1646*** 4.0K
R1647*** 1.00K *
U1531B 4051
U1541B 4094
U1841B 4094
C1841 0.1
C1531 0.1
R1534 0.25K
R1631 6.81K
P/O A6 REFERENCE BD.
CG5010/CG5011
(7746-77)
PRECISION DIVIDER & V-1 CONVERTER

SEE
OTHER
SIDE

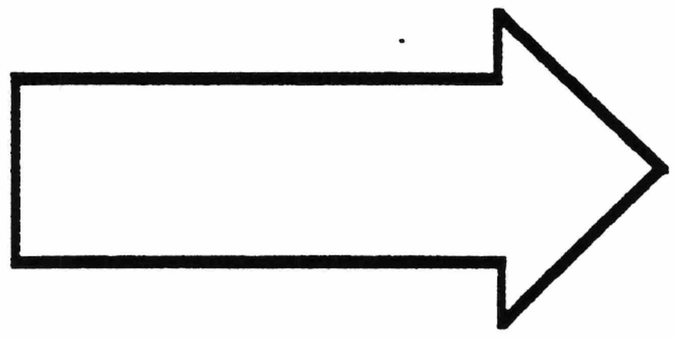
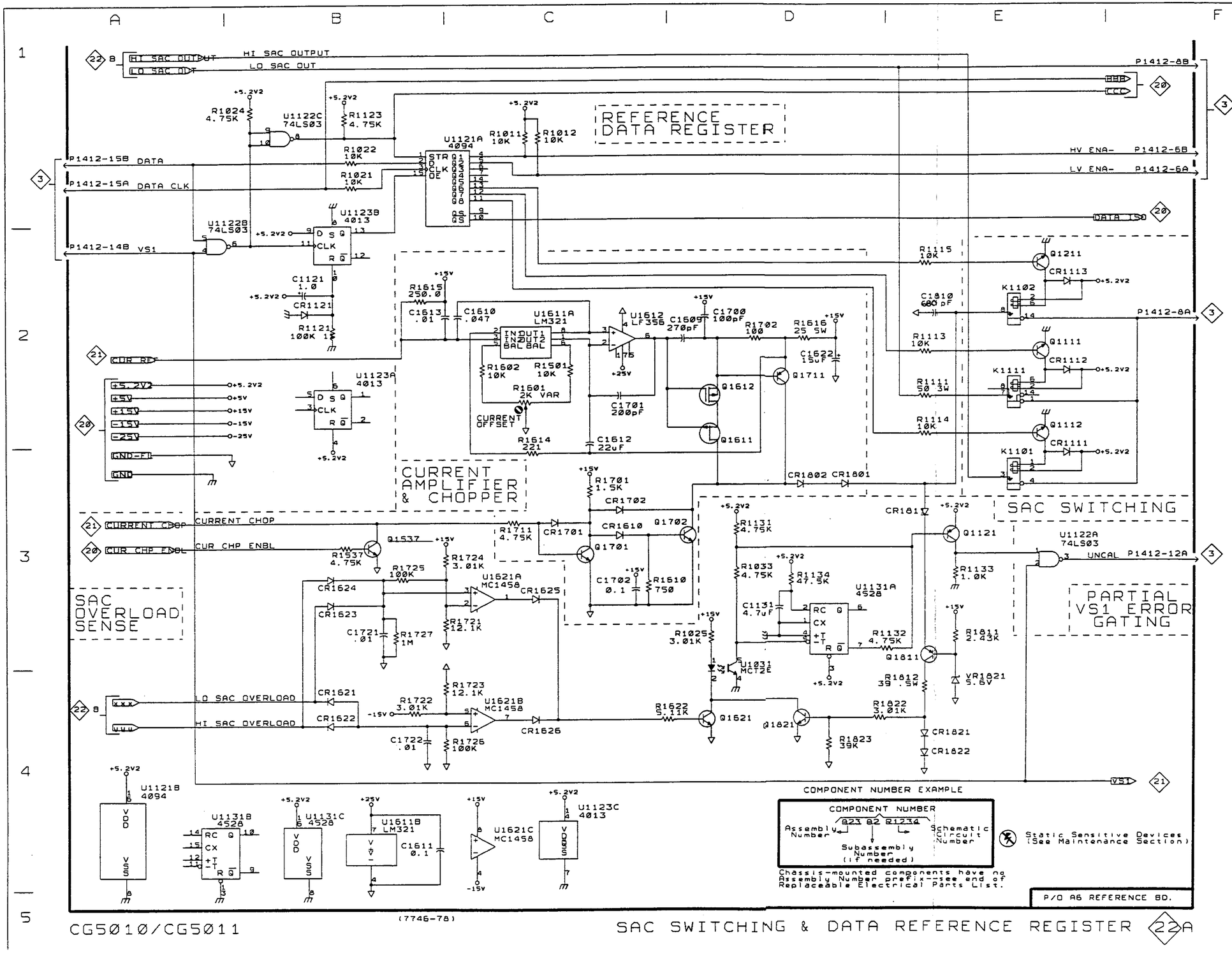


Table 9-24

SAC SWITCHING & DATA REFERENCE REGISTER 22A — REFERENCE BOARD, ASSEMBLY A6

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C1121	B 2	B 2	CR1821	E 4	F 2	R1025	D 3	A 3	R1727	B 3	E 2
C1131	D 3	B 3	CR1822	E 4	F 2	R1033	D 3	A 4	R1811	E 3	F 1
C1609	D 2	F 1				R1111	E 2	B 2	R1812	E 4	F 2
C1610	C 2	F 1	K1101	E 3	B 1	R1113	E 2	B 2	R1822	D 4	F 2
C1611	C 4	E 2	K1102	E 2	B 1	R1114	E 2	B 2	R1823	D 4	F 2
C1612	C 2	E 2	K1111	E 2	B 2	R1115	E 2	B 2			
C1613	B 2	E 2				R1121	B 2	B 2	U1031	D 3	A 3
C1622	D 2	E 2	P1412	A 1,A 2,	A 1	R1123	B 1	B 2	U1121A	C 1	B 2
C1700	D 2	F 1		F 1-F 3		R1131	D 3	B 3	U1121B	A 4	B 2
C1701	C 2	F 1				R1132	D 3	B 3	U1122A	E 3	B 2
C1702	C 3	F 1	Q1111	E 2	B 2	R1133	E 3	B 3	U1122B	A 1	B 2
C1721	B 3	F 2	Q1112	E 2	B 2	R1134	D 3	B 3	U1122C	B 1	B 2
C1722	B 4	F 2	Q1121	E 3	B 2	R1501	C 2	E 2	U1123A	B 2	B 2
			Q1211	E 2	B 2	R1537	B 3	D 3	U1123B	B 1	B 2
CR1111	E 3	B 2	Q1537	B 3	D 3	R1601	C 2	E 1	U1123C	C 4	B 2
CR1112	E 2	B 1	Q1611	D 2	E 3	R1602	C 2	E 1	U1131A	D 3	B 3
CR1113	E 2	B 1	Q1612	D 2	E 1	R1614	C 3	E 2	U1131B	B 4	B 3
CR1121	B 2	B 2	Q1621	D 4	E 2	R1615	B 2	E 2	U1131C	B 4	B 3
CR1621	B 4	E 2	Q1701	C 3	E 1	R1616	D 2	F 2	U1611A	C 2	E 1
CR1622	B 4	E 2	Q1702	C 3	E 1	R1622	D 4	E 2	U1611B	B 4	E 1
CR1623	B 3	E 2	Q1711	D 2	E 2	R1701	C 3	E 1	U1612	C 2	E 1
CR1624	B 3	E 2	Q1811	E 3	F 1	R1702	D 2	E 1	U1621A	C 3	E 2
CR1625	C 3	E 2	Q1821	D 4	F 2	R1711	C 3	F 1	U1621B	C 4	E 2
CR1626	C 4	E 2				R1721	C 3	E 2	U1621C	C 4	E 2
CR1701	C 3	F 1	R1011	C 1	A 2	R1722	B 4	E 2			
CR1702	C 3	F 1	R1012	C 1	A 2	R1723	C 4	E 2	VR1821	E 4	F 2
CR1801	D 3	F 1	R1021	B 1	A 2	R1724	C 3	E 2			
CR1802	D 3	F 1	R1022	B 1	A 3	R1725	B 3	F 2			
CR1811	E 3	F 1	R1024	B 1	A 2	R1726	C 4	F 2			



CG5010/CG5011

SAC SWITCHING & DATA REFERENCE REGISTER 22A

SEE
OTHER
SIDE

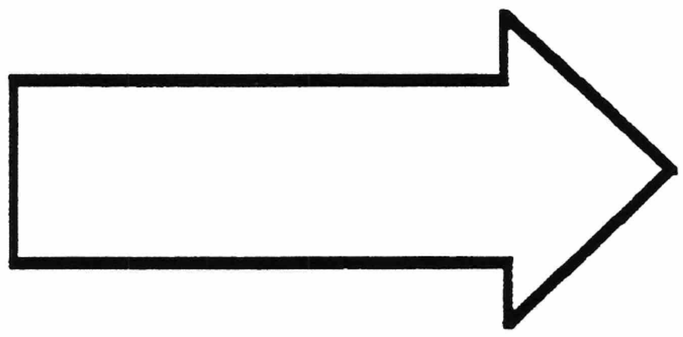
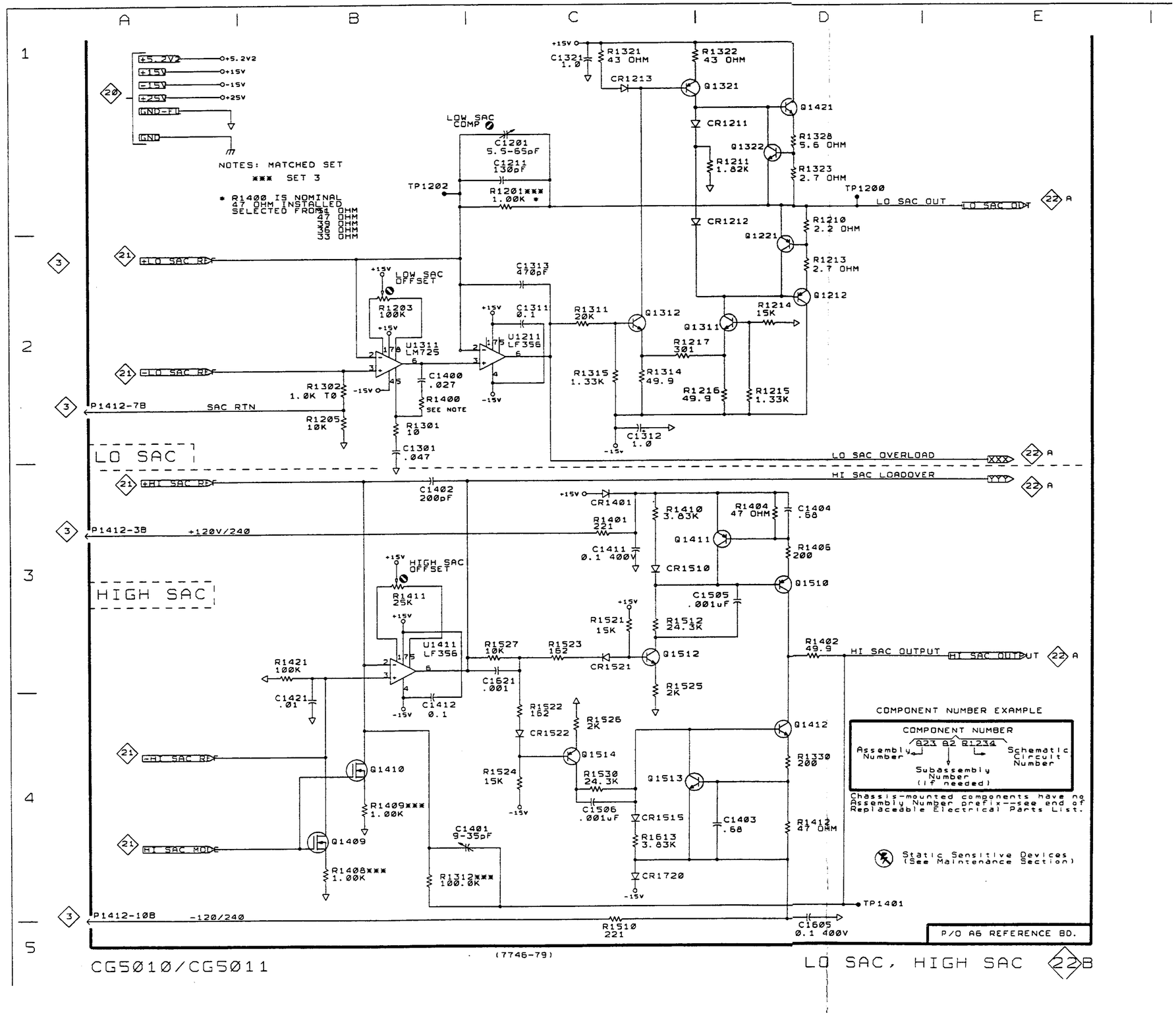


Table 9-25

LO SAC, HIGH SAC 22B — REFERENCE BOARD, ASSEMBLY A6

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
CR1720	C 4	E 2	Q1410	B 4	D 2	R1312	B 4	C 1
CR1515	C 4	D 2	Q1513	D 4	D 2	R1314	C 2	C 1
CR1211	D 1	B 2	Q1212	D 2	C 2	R1315	C 2	C 1
CR1212	D 1	B 2	Q1221	D 2	C 2	R1321	C 1	C 2
CR1213	C 1	C 2	Q1311	D 2	C 2	R1322	D 1	C 2
CR1401	C 3	C 1	Q1312	C 2	C 2	R1323	D 1	C 2
CR1510	C 3	D 2	Q1321	D 1	C 2	R1328	D 1	C 2
CR1521	C 3	D 2	Q1322	D 1	C 2	R1400	B 2	C 1
CR1522	C 4	D 2	Q1411	D 3	D 2	R1401	C 3	D 1
			Q1412	D 4	D 1	R1402	D 3	C 1
C1403	D 4	C 2	Q1421	D 1	D 2	R1404	D 3	C 2
C1505	D 3	E 1	Q1510	D 3	D 1	R1406	D 3	D 1
C1506	C 4	E 1	Q1512	C 3	E 2	R1410	C 3	D 1
C1201	C 1	B 1	Q1514	C 4	D 2	R1411	B 3	C 2
C1211	C 1	B 1				R1412	D 4	D 2
C1301	B 2	C 1	R1408	B 4	D 2	R1421	B 3	E 1
C1311	C 2	C 1	R1409	B 4	D 2	R1512	C 3	D 2
C1312	C 2	B 2	R1510	C 5	D 2	R1521	C 3	D 2
C1313	C 2	C 2	R1330	D 4	C 2	R1522	C 4	D 2
C1321	C 1	C 2	R1530	C 4	E 2	R1523	C 3	D 2
C1400	B 2	C 1	R1201	C 1	B 1	R1524	D 4	D 2
C1401	C 4	D 1	R1203	B 2	C 1	R1525	C 3	D 2
C1402	B 3	C 1	R1205	B 2	B 1	R1526	C 4	D 2
C1404	D 3	C 2	R1210	D 1	B 2	R1527	C 3	D 2
C1411	C 3	D 1	R1211	D 1	B 2	R1613	C 4	E 2
C1412	B 4	D 2	R1213	D 2	B 1			
C1421	B 4	D 2	R1214	D 2	B 1	TP1200	D 1	B 1
C1605	D 5	E 1	R1215	D 2	C 1	TP1202	B 1	B 1
C1621	C 3	E 2	R1216	D 2	C 1	TP1401	D 4	E 1
			R1217	C 2	C 1			
P1412	A 2,A 3,A 4	A 1	R1301	B 2	C 1	U1211	C 2	C 1
			R1302	B 2	C 1	U1311	B 2	C 1
Q1409	B 4	D 2	R1311	C 2	C 1	U1411	B 3	C 2


+5.2V2
+15V
-15V
+25V
GND-FI
GND
NOTES: MATCHED SET
*** SET 3
* R1400 IS NOMINAL 47 OHM INSTALLED SELECTED FROM 47 OHM 51 OHM 56 OHM
+LO SAC REF
-LO SAC REF
P1412-7B
SAC RTN
LOW SAC COMP
C1201 5.5-65pF
C1211 130pF
R1201*** 1.00K *
TP1202
LOW SAC OFFSET
R1203 100K
U1311 LM725
R1302 1.0K TO
R1205 10K
C1400 .027
R1400 SEE NOTE
R1301 10
C1301 .047
C1313 470pF
C1311 0.1
U1211 LF356
R1311 20K
Q1312
R1315 1.33K
R1314 49.9
R1217 301
R1216 49.9
R1215 1.33K
C1312 1.0
R1321 43 OHM
C1321 1.0
R1322 43 OHM
CR1213
Q1321
Q1421
CR1211
R1328 5.6 OHM
Q1322
R1211 1.82K
R1323 2.7 OHM
TP1200
LO SAC OUT
CR1212
R1210 2.2 OHM
Q1221
R1213 2.7 OHM
Q1212
R1214 15K
Q1311
LO SAC
LO SAC OVERLOAD
HI SAC LOADOVER
+HI SAC REF
C1402 200pF
P1412-3B
+120V/240
CR1401
R1401 221
C1411 0.1 400V
R1410 3.63K
R1404 47 OHM
C1404 .68
Q1411
R1406 200
CR1510
Q1510
C1505 .001uF
R1512 24.3K
R1521 15K
HIGH SAC
HIGH SAC OFFSET
R1411 25K
U1411 LF356
R1421 100K
C1421 .01
C1412 0.1
R1527 10K
R1523 162
CR1521
Q1512
R1525 2K
C1521 .001
R1402 49.9
HI SAC OUTPUT
R1522 162
R1526 2K
CR1522
Q1514
R1524 15K
R1530 24.3K
C1506 .001uF
-HI SAC REF
Q1410
R1409*** 1.00K
HI SAC MODE
Q1409
R1408*** 1.00K
C1401 9-35pF
R1312*** 100.0K
Q1513
CR1515
R1613 3.83K
CR1720
C1403 .68
Q1412
R1330 200
R1412 47 OHM
TP1401
P1412-10B
-120/240
R1510 221
C1605 0.1 400V
COMPONENT NUMBER EXAMPLE
COMPONENT NUMBER
A23 Q2 R1234
Assembly Number
Subassembly Number (if needed)
Schematic Circuit Number
Chassis-mounted components have no Assembly Number prefix-see end of Replaceable Electrical Parts List.
Static Sensitive Devices (See Maintenance Section)
P/O A6 REFERENCE BD.
(7746-79)
CG5010/CG5011
LO SAC, HIGH SAC
22B

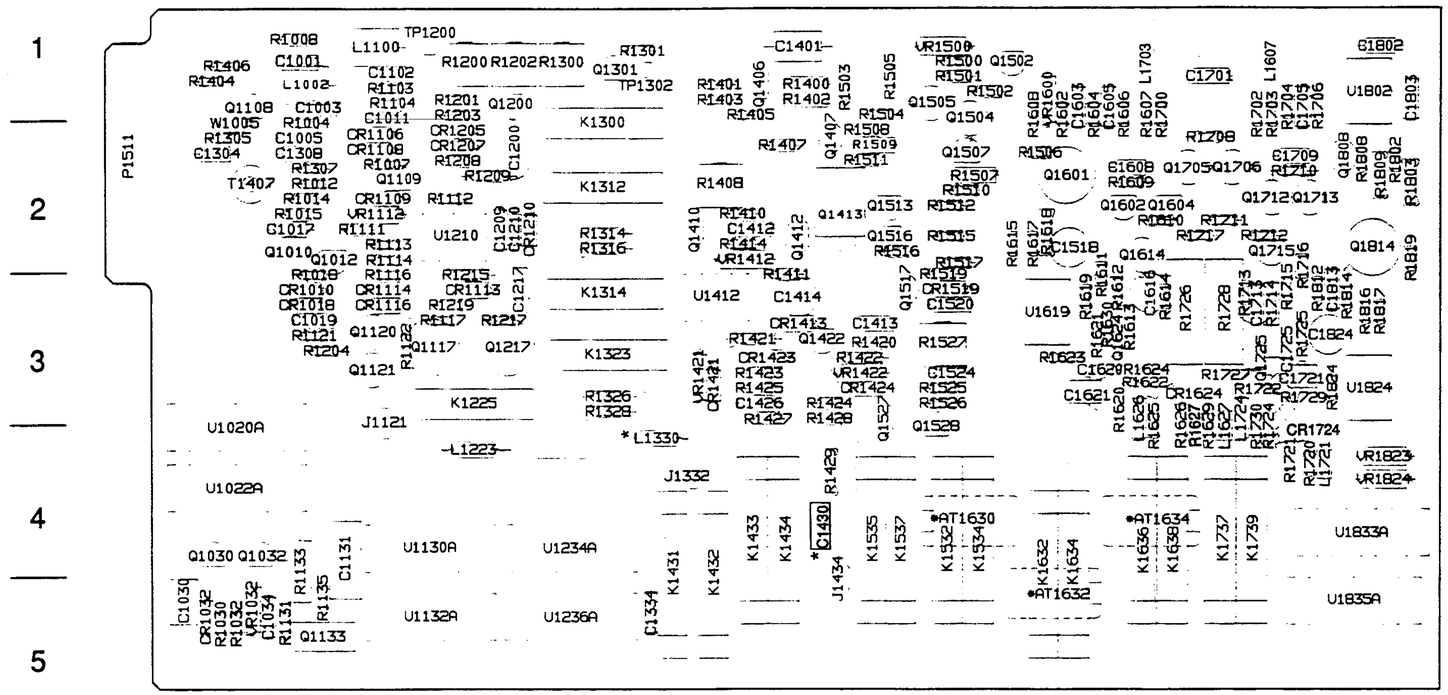


Fig. 9-57. Output Board (A7).

SEE
OTHER
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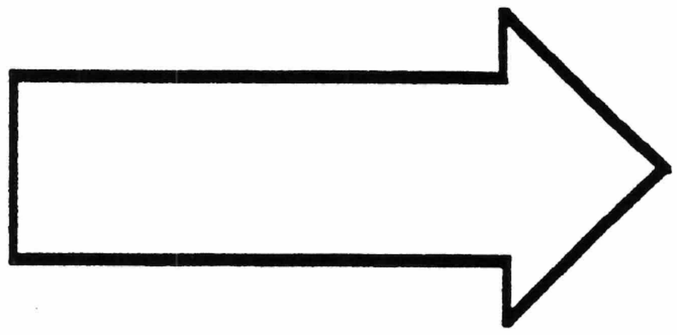
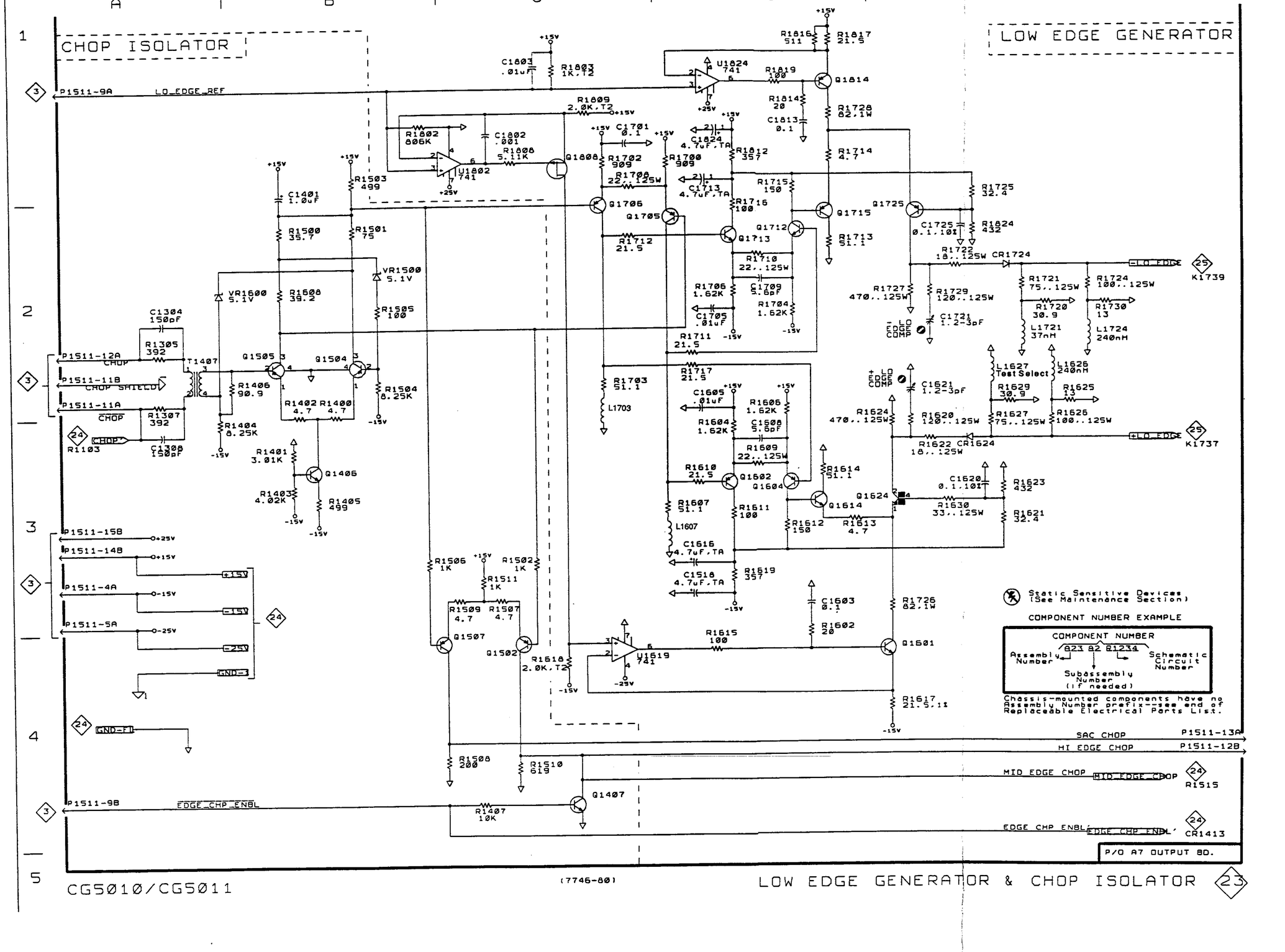


Table 9-26

LOW EDGE GENERATOR & CHOP ISOLATOR (23) — OUTPUT BOARD, ASSEMBLY A7

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C1304	A 2	A 2	Q1505	B 2	D 1	R1510	C 4	D 2	R1713	D 2	E 2
C1308	A 3	B 2	Q1507	C 4	D 2	R1511	C 3	D 2	R1714	D 1	F 2
C1401	B 1	D 1	Q1601	E 4	E 2	R1602	D 3	E 1	R1715	D 1	F 2
C1518	D 3	E 2	Q1602	D 3	E 2	R1604	D 3	E 1	R1716	D 1	F 2
C1603	D 3	E 1	Q1604	D 3	E 2	R1606	D 2	E 1	R1717	D 2	E 2
C1605	D 2	E 1	Q1614	D 3	E 2	R1607	D 3	E 1	R1720	E 2	F 3
C1608	D 3	E 2	Q1624	E 3	G 3	R1608	B 2	E 1	R1721	E 2	F 3
C1616	D 3	E 2	Q1705	D 2	E 2	R1609	D 3	E 2	R1722	E 2	H 3
C1620	E 3	E 2	Q1706	C 2	E 2	R1610	D 3	E 2	R1724	F 2	H 3
C1621	E 2	E 3	Q1712	D 2	F 2	R1611	D 3	E 2	R1725	E 1	F 2
C1701	C 1	E 1	Q1713	D 2	F 2	R1612	D 3	E 2	R1726	E 3	E 2
C1705	D 2	F 1	Q1715	D 2	F 2	R1613	D 3	E 2	R1727	E 2	H 3
C1709	D 2	F 2	Q1725	E 2	H 3	R1614	D 3	E 2	R1728	D 1	E 2
C1713	D 1	E 2	Q1808	C 1	F 2	R1615	D 4	E 2	R1729	E 2	H 3
C1721	E 2	F 2	Q1814	D 1	F 2	R1617	E 4	E 2	R1730	F 2	E 3
C1725	E 2	F 2				R1618	C 4	E 2	R1802	B 1	F 2
C1802	C 1	F 1	R1305	A 2	A 1	R1619	D 3	E 2	R1803	C 1	F 2
C1803	C 1	F 1	R1307	A 2	B 2	R1620	E 3	G 3	R1808	C 1	F 2
C1813	D 1	F 2	R1400	B 2	D 1	R1621	E 3	E 2	R1809	C 1	F 2
C1824	D 1	F 2	R1401	B 3	C 1	R1622	E 3	G 3	R1812	D 1	F 2
			R1402	B 2	D 1	R1623	E 3	E2	R1814	D 1	F 2
CR1624	E 3	H 3	R1403	B 3	C 1	R1624	E 2	G 3	R1816	D 1	F 2
CR1724	E 2		R1404	B 3	A 1	R1625	E 2	E 3	R1817	D 1	F 2
L1607	D3	H1	R1405	B 3	C 1	R1626	E 3	E 3	R1819	D 1	F 2
L1626	E 2	E 3	R1406	B 2	A 1	R1627	E 3	H 3	R1824	E 2	F 2
L1627	E 2	E 3	R1407	C 4	D 2	R1629	E 2	E 3			
L1703	D3	H1	R1500	B 2	D 1	R1630	E 3	G 2	T1407	A 2	A 2
L1721	E 2	F 3	R1501	B 2	D 1	R1700	D 1	E 1			
L1724	F 2	E 3	R1502	C 3	D 1	R1702	C 1	E 1	U1619	C 4	E 2
P1511	A 1,A 2,A 3, A 4,F 4	A 2	R1503	B 1	D 1	R1703	C 2	F 1	U1802	C 1	F 1
			R1504	B 2	D 1	R1704	D 2	F 1	U1824	D 1	F 2
			R1505	B 2	D 1	R1706	D 2	F 1			
Q1406	B 3	C 1	R1506	C 3	E 2	R1708	C 1	E 1	VR1500	B 2	D 1
Q1407	C 4	D 1	R1507	C 3	D 2	R1710	D 2	F 2	VR1600	A 2	E 1
Q1502	C 4	D 1	R1508	C 4	D 1	R1711	D 2	E 2			
Q1504	B 2	D 1	R1509	C 3	D 2	R1712	C 2	F 2			


CHOP ISOLATOR
LOW EDGE GENERATOR
P1511-9A LO_EDGE_REF
P1511-12A CHOP
P1511-11B CHOP SHIELD
P1511-11A CHOP
P1511-15B
P1511-14B
P1511-4A
P1511-5A
P1511-9B EDGE_CHP_ENBL
SAC CHOP P1511-13A
HI EDGE CHOP P1511-12B
MID EDGE CHOP MID_EDGE_CHOP
EDGE CHP ENBL EDGE_CHP_ENBL'
LO_EDGE
K1739
K1737
R1103
CR1413
P/O A7 OUTPUT BD.
Static Sensitive Devices (See Maintenance Section)
COMPONENT NUMBER EXAMPLE
COMPONENT NUMBER
A23 A2 R1234
Assembly Number
Subassembly Number (If needed)
Schematic Circuit Number
Chassis-mounted components have no Assembly Number prefix--see end of Replaceable Electrical Parts List.
CG5010/CG5011
(7746-80)
LOW EDGE GENERATOR & CHOP ISOLATOR
23

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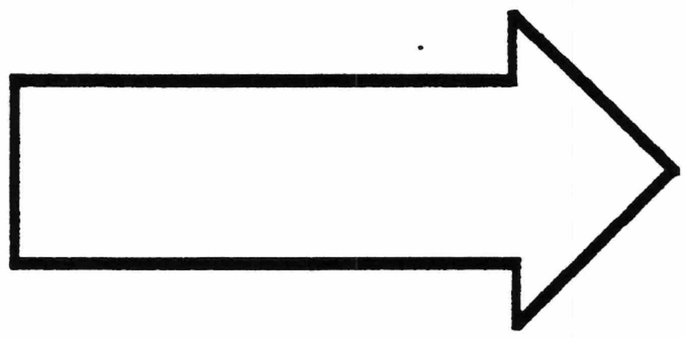
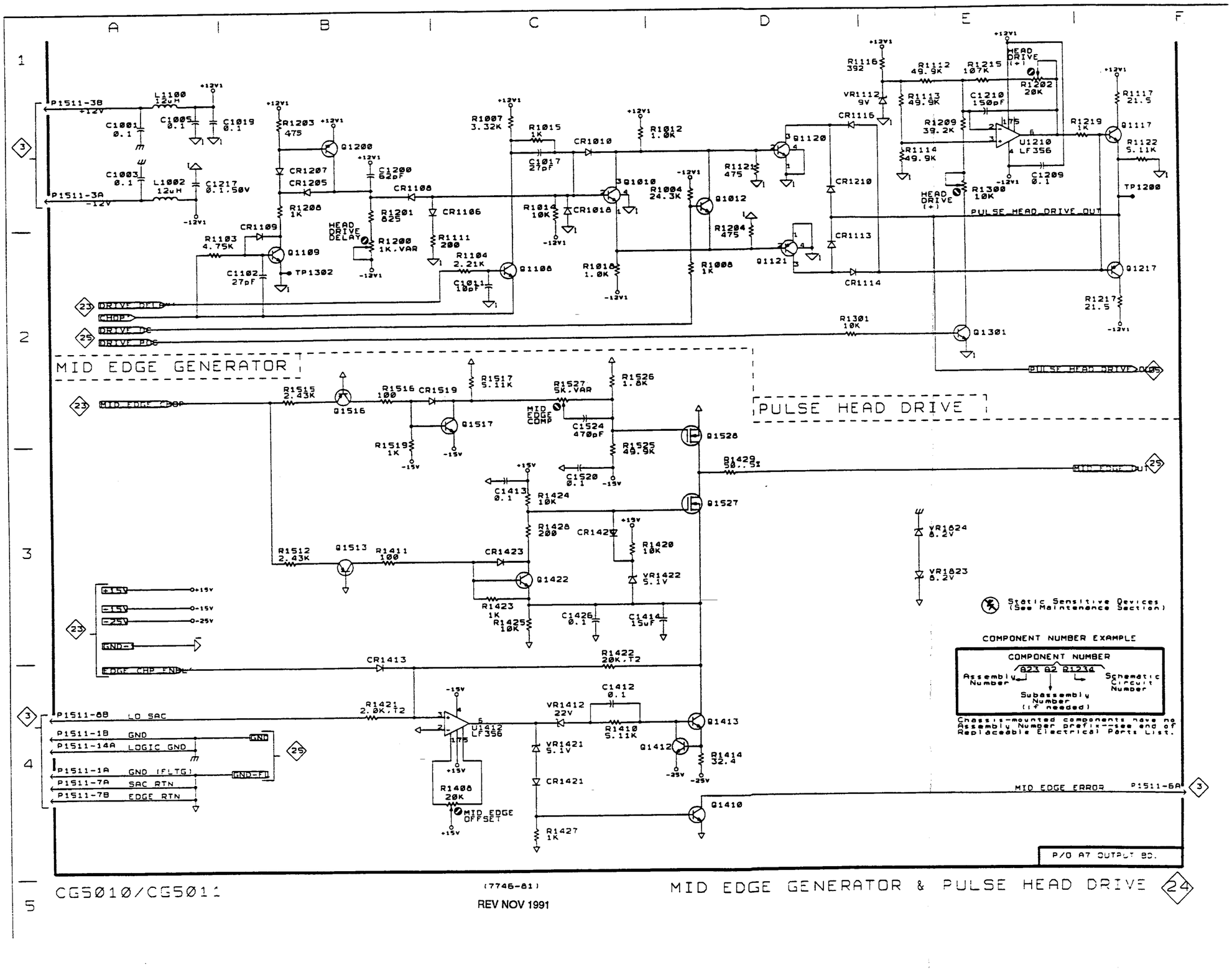


Table 9-27

MID EDGE GENERATOR & PULSE HEAD DRIVE ◇24◇ — OUTPUT BOARD, ASSEMBLY A7

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C1001	A 1	B 1	CR1423	C 3	D 2	R1008	D 2	B 1	R1420	C 3	D 2
C1003	A 1	B 1	CR1424	C 3	D 3	R1012	D 1	B 2	R1421	B 4	C 2
C1005	A 1	B 1	CR1519	B 2	D 2	R1014	C 1	B 2	R1422	C 3	D 2
C1011	C 1	B 1				R1015	C 1	B 2	R1423	C 3	C 2
C1017	C 1	B 2	L1002	A 1	B 1	R1018	C 2	B 2	R1424	C 3	D 3
C1019	B 1	B 2	L1100	A 1	B 1	R1103	B 2	B 1	R1425	C 3	C 2
C1102	B 2	B 1				R1104	C 2	B 1	R1427	C 4	D 3
C1200	B 1	B 2	P1511	A 1,A 4,F 4	A 2	R1111	C 2	B 2	R1428	C 3	D 3
C1209	E 1	B 2				R1112	E 1	B 2	R1429	D 3	D 3
C1210	E 1	B 2	Q1010	C 1	B 2	R1113	E 1	B 2	R1512	B 3	D 2
C1217	A 1	B 2	Q1012	D 1	B 2	R1114	E 1	B 2	R1515	B 2	D 2
C1412	C 4	C 2	Q1108	C 2	A 1	R1116	E 1	B 2	R1516	B 2	D 2
C1413	C 3	D 2	Q1109	B 2	B 2	R1117	F 1	B 2	R1517	C 2	D 2
C1414	D 3	D 2	Q1117	F 1	B 2	R1121	D 1	B 2	R1519	B 2	D 2
C1426	C 3	C 3	Q1120	D 1	B 2	R1122	F 1	B 2	R1525	C 3	D 3
C1520	C 3	D 2	Q1121	D 2	B 2	R1200	B 2	B 1	R1526	C 2	D 3
C1524	C 2	D 2	Q1200	B 1	B 1	R1201	B 1	B 1	R1527	C 2	D 2
			Q1217	F 2	B 2	R1202	E 1	B 1			
CR1010	C 1	B 2	Q1301	E 2	C 1	R1203	B 1	B 1	TP1200	F 1	B 1
CR1018	C 1	B 2	Q1410	D 4	C 2	R1204	D 2	B 2	TP1302	B 2	C 1
CR1106	C 1	B 1	Q1412	D 4	D 2	R1208	B 1	B 2			
CR1108	B 1	B 2	Q1413	D 4	D 2	R1209	E 1	B 2	U1210	E 1	B 2
CR1109	B 2	B 2	Q1422	C 3	D 2	R1215	E 1	B 2	U1412	C 4	C 2
CR1113	D 2	B 2	Q1513	B 3	D 2	R1217	F 2	B 2			
CR1114	D 2	B 2	Q1516	B 2	D 2	R1219	F 1	B 2	VR1112	E 1	B 2
CR1116	D 1	B 2	Q1517	C 2	D 2	R1300	E 1	C 1	VR1412	C 4	C 2
CR1205	B 1	B 1	Q1527	D 3	D 3	R1301	D 2	C 1	VR1421	C 4	C 2
CR1207	B 1	B 2	Q1528	D 2	D 3	R1408	C 4	C 2	VR1422	C 3	D 2
CR1210	D 1	C 1				R1410	C 4	C 2	VR1823	E 3	F 3
CR1413	B 4	D 2	R1004	D 1	B 1	R1411	B 3	D 2	VR1824	E 3	F 3
CR1421	C 4	C 2	R1007	C 1	B 2	R1414	D 4	C 2			



CG5010/CG5011

(7746-61)

REV NOV 1991

MID EDGE GENERATOR & PULSE HEAD DRIVE 24

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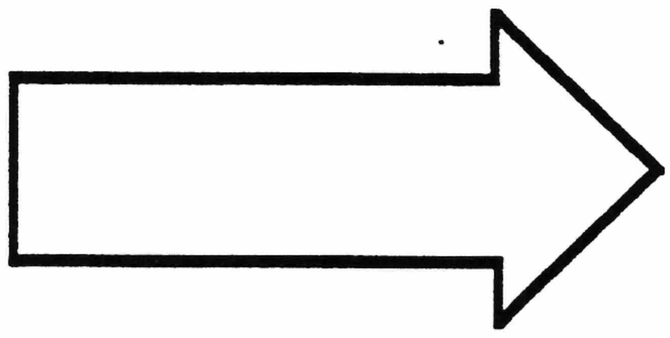
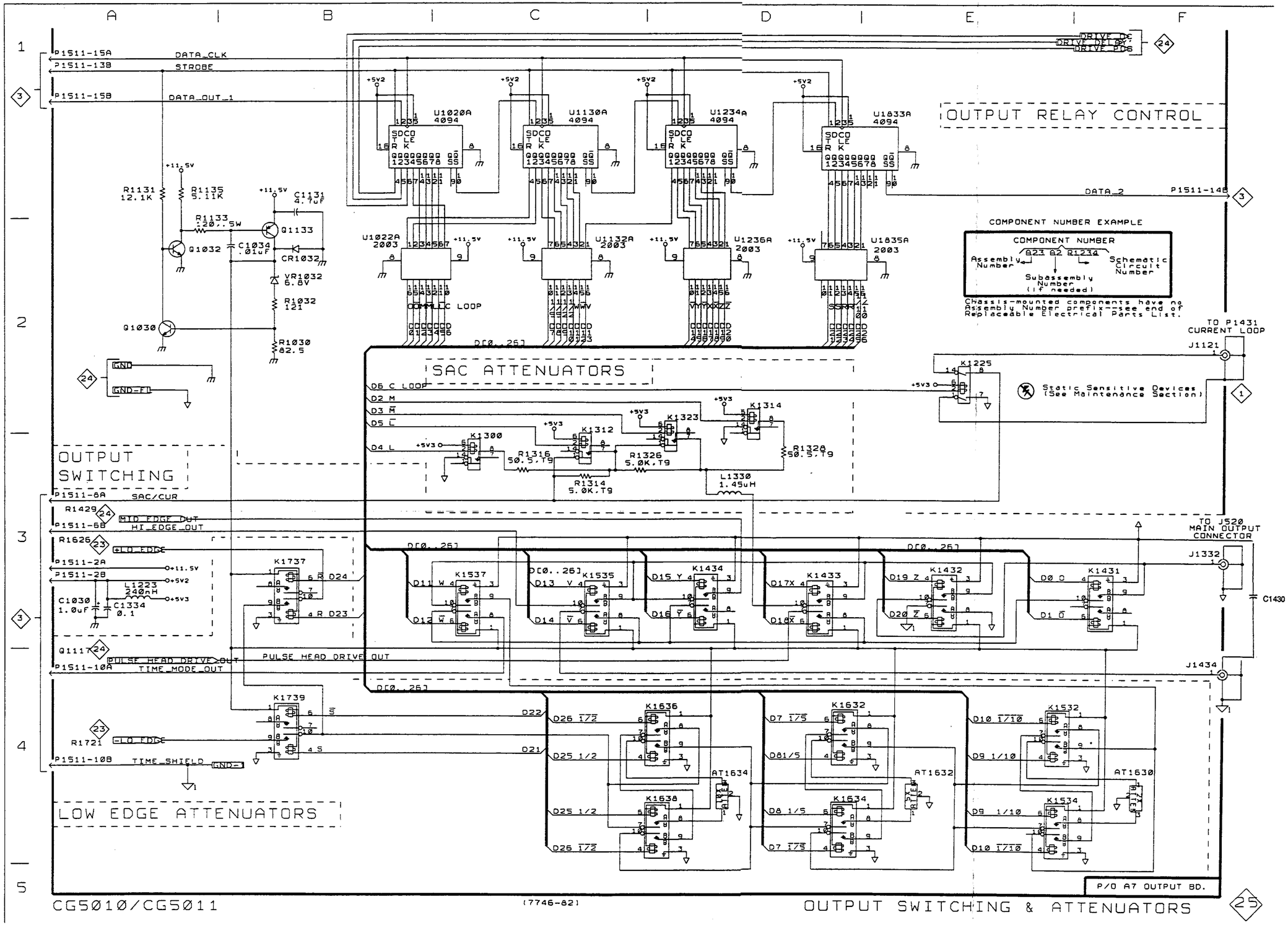
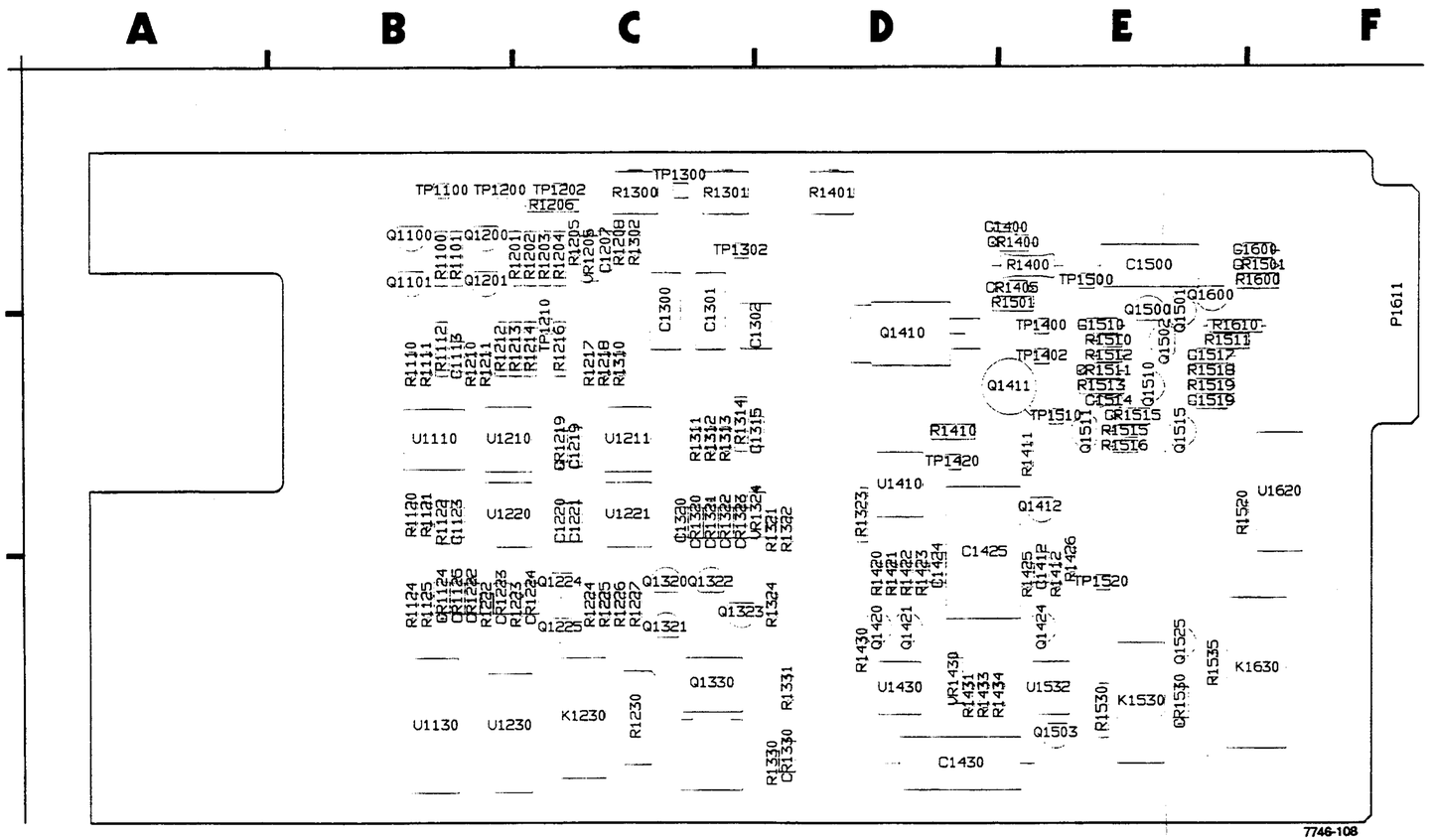


Table 9-28

OUTPUT SWITCHING & ATTENUATORS — OUTPUT BOARD, ASSEMBLY A7 (25)

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
AT1630	F 4	D 3	K1739	B 4	E 3
AT1632	E 4	E 3			
AT1634	D 4	E 3	L1223	A 3	B 3
			L1330	D 3	C 3
C1030	A 3	A 3			
C1034	B 2	A 3	P1511	A 1,A 3, A 4,F 1	A 1
C1131	B 1	B 3			
C1334	A 3	C 3			
C1430	F3	E4	Q1030	A 2	A 3
CR1032	B 2	A 3	Q1032	A 2	A 3
			Q1133	B 2	B 3
J1121	F 2	B 3			
J1332	F 3	C 3	R1030	B 2	A 3
J1434	F 4	D 3	R1032	A 5	A 3
			R1131	A 1	B 3
K1225	E 2	B 3	R1133	A 2	B 3
K1300	C 3	C 1	R1135	A 1	B 3
K1312	C 2	C 2	R1314	C 3	C 2
K1314	D 2	C 2	R1316	C 3	C 2
K1323	D 2	C 2	R1326	C 3	C 3
K1431	F 3	C 3	R1328	D 3	C 3
K1432	E 3	C 3			
K1433	D 3	C 3	U1020A	C 1	A 3
K1434	D 3	D 3	U1022A	B 2	A 3
K1532	E 4	D 3	U1130A	C 1	B 3
K1534	E 4	D 3	U1132A	C 2	B 3
K1535	C 3	D 3	U1234A	D 1	C 4
K1537	C 3	D 3	U1236A	D 2	C 4
K1632	D 4	E 3	U1833A	E 1	F 3
K1634	D 4	E 3	U1835A	E 2	F 3
K1636	D 4	E 3			
K1638	D 4	E 3	VR1032	B 2	A 3
K1737	B 3	E 3			


OUTPUT RELAY CONTROL
DRIVE_DC
DRIVE_DELAY
DRIVE_PDS
DATA_2
P1511-14B
COMPONENT NUMBER EXAMPLE
COMPONENT NUMBER
A23 A2 R1234
Assembly Number
Subassembly Number (If needed)
Schematic Circuit Number
Chassis-mounted components have no Assembly Number prefix--see end of Replaceable Electrical Parts List.
P1511-15A DATA_CLK
P1511-13B STROBE
P1511-15B DATA_OUT_1
U1020A 4094
U1130A 4094
U1234A 4094
U1833A 4094
U1022A 2003
U1132A 2003
U1236A 2003
U1835A 2003
+5V2
+11.5V
LOOP
D[0..26]
R1131 12.1K
R1135 5.11K
R1133 .20..5W
C1131 4.7uF
C1034 .01uF
Q1133
Q1032
CR1032
VR1032 6.8V
R1032 121
Q1030
R1030 82.5
GND
GND-FL
TO P1431 CURRENT LOOP
J1121
Static Sensitive Devices (See Maintenance Section)
SAC ATTENUATORS
D6 C LOOP
D2 M
D3 M
D5 L
D4 L
+5V3
K1225
K1300
K1312
K1323
K1314
R1316 50.5.T9
R1326 5.0K.T9
R1314 5.0K.T9
R1320 50.5.T9
L1330 1.45uH
OUTPUT SWITCHING
P1511-6A SAC/CUR
R1429
P1511-6B MID_EDGE_OUT HI_EDGE_OUT
R1626
+LO EDGE
P1511-2A +11.5V
P1511-2B +5V2 +5V3
L1223 240nH
C1030 1.0uF
C1334 0.1
K1737
D24
D23
Q1117
P1511-10A PULSE_HEAD_DRIVE_OUT TIME_MODE_OUT
PULSE HEAD DRIVE OUT
TO J520 MAIN OUTPUT CONNECTOR
J1332
C1430
J1434
K1739
R1721
-LO EDGE
P1511-10B TIME_SHIELD
GND-1
D22
D21
K1537
K1535
K1434
K1433
K1432
K1431
K1636
K1638
K1632
K1634
K1532
K1534
AT1634
AT1632
AT1630
LOW EDGE ATTENUATORS
P/O A7 OUTPUT BD.
CG5010/CG5011
(7746-82)
OUTPUT SWITCHING & ATTENUATORS



A8

Fig. 9-58. High Edge Board (A8).

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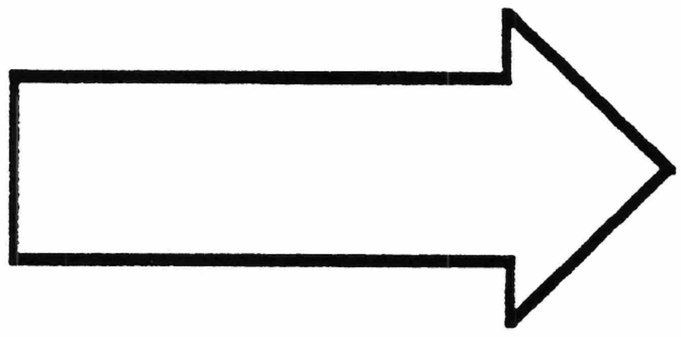


Table 9-29

POWER ON TEXT & HEAT (26) — HIGH EDGE BOARD, ASSEMBLY A8

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C1113	D 1	B 2	Q1101	C 1	B 1	R1212	C 1	B 2	TP1200	A 3	B 1
C1123	C 1	B 2	Q1200	C 2	B 1	R1213	D 1	B 2	TP1202	D 1	C 1
C1207	A 3	C 1	Q1201	C 1	B 1	R1214	D 1	C 2	TP1210	D 1	C 2
C1219	B 4	C 2	Q1224	B 1	C 3	R1216	D 2	C 2	TP1300	D 3	C 1
C1220	B 4	C 2	Q1225	B 2	C 3	R1217	C 3	C 2	TP1302	C 1	C 1
C1221	B 4	C 2	Q1320	E 4	C 3	R1218	C 3	C 2			
C1300	A 3	C 1	Q1321	E 3	C 3	R1222	E 2	B 3	U1110	D 1	B 2
C1301	A 4	C 1	Q1322	E 4	C 3	R1223	B 2	B 3	U1130A	B 2	B 3
C1302	A 3	D 2	Q1323	B 3	C 3	R1224	E 4	C 3	U1130B	B 4	B 3
C1315	D 3	C 2	Q1330	C 3	C 3	R1225	E 3	C 3	U1210	D 1	B 2
C1320	D 3	C 2				R1226	E 3	C 3	U1211	D 3	C 2
			R1100	C 1	B 1	R1227	E 3	C 3	U1220A	E 2	B 2
CR1124	B 1	B 3	R1101	C 1	B 1	R1230	C 3	C 3	U1220B	E 2	B 2
CR1125	E 2	B 3	R1110	B 1	B 2	R1300	D 2	C 1	U1220C	C 4	B 2
CR1219	D 1	C 2	R1111	B 2	B 2	R1301	D 3	C 1	U1221A	D 3	C 2
CR1222	E 2	B 3	R1112	C 1	B 2	R1302	C 3	C 1	U1221B	D 3	C 2
CR1223	E 2	B 3	R1120	A 2	B 2	R1310	C 3	C 2	U1221C	B 4	C 2
CR1224	B 3	C 3	R1121	C 1	B 2	R1311	D 3	C 2	U1230A	A 1	B 3
CR1320	D 3	C 2	R1122	D 1	B 2	R1312	D 3	C 2	U1230B	B 1	B 3
CR1321	E 3	C 2	R1124	A 2	B 3	R1313	D 4	C 2	U1230C	C 4	B 3
CR1322	E 3	C 2	R1125	B 2	B 3	R1314	D 4	C 2	U1230D	C 4	B 3
CR1323	D 4	C 2	R1201	C 1	C 1	R1321	E 4	D 2	U1230E	D 4	B 3
CR1330	E 2	D 3	R1202	C 1	C 1	R1322	E 4	D 2	U1620A	F 1	F 2
			R1203	D 2	C 1	R1324	C 3	D 3	U1620C	F 1	F 2
K1230	B 3	C 3	R1204	D 2	C 1	R1330	E 1	D 3	U1620D	F 4	F 2
K1530	B 1	E 3	R1205	D 2	C 1	R1331	B 3	D 3	U1620E	D 4	F 2
			R1206	C 2	C 1	R1520	E 1	E 2			
P1611	A 1,F 1	F 1	R1208	C 2	C 1	R1530	C 1	E 3	VR1205	C 2	C 1
			R1210	B 2	B 2				VR1324	E 4	D 2
Q1100	C 1	B 1	R1211	B 2	B 2	TP1100	D 1	B 1			

HEAD PROGRAMMER

P/O P1611
11A DATA OUT 2
8A SAC/CUR
14B
15B DATA
15A DATA CLOCK
3B COMPARATOR DRIVE
2B +5V2
3B +12V
1A GND
1B
3A -12V

U1230A 4011
U1230B 4011
U1130A 4094
U1130B 4094
U1220A MC1458
U1220B MC1458
U1221A MC1458
U1221B MC1458
U1221C MC1458
U1220C MC1458
U1210 741
U1211 741
U1110 308AN
U1620A 74LS03
U1620C 74LS03
U1620D 74LS03
U1620E 74LS03
U1230C 4011
U1230D 4011
U1230E 4011

R1120 10K
R1124 10K
R1125 4.75K
R1110 18.2K
R1111 4.75K
R1210 18.2K
R1211 4.75K
R1223 4.75K
R1100 4.0K (T9)
R1101 698.0K
R1530 20.0K (T9)
K1530
TP1302
CR1124
Q1224
Q1100
Q1101
Q1200
Q1201
R1202 5.0K
R1201 1.0K (T9)
R1206 60.4
R1212 75K (T2)
C1113 100
R1112 500K (T2)
C1123 33
R1121 75.0K
R1122 3.3K
TP1100
R1213 10.0K (T9)
R1214 5.0K
TP1210
TP1202
R1520 15K 0.2W
R1330 10K
R1222 7.5K
CR1125
CR1330
CR1223
CR1219
CR1222
R1208 750
R1300 10K VAR
R1205 20.0K
R1204 3.04K (T9)
R1216 15.0K (T9)
R1203 15.0K (T9)
VR1205 6.2V

POWER ON TEST

HV SW
DATA OUT
STROBE
VSS
HV SD
DS4 E2
DS5
DS6
LOGIC GND
GND
LO SAC OUTPUT
LO SAC OUT
CONTROL PIN

Q1225
CR1224
K1230
R1230 2 WW
R1218 24.9K
R1217 24.9K
R1310 24.9K
R1302 24.3K
R1324 3.01K
Q1323
Q1330
R1331 2K
C1320 100
R1312 43.2K
CR1320
R1311 2.00K
TP1300
R1301 1K VAR
CR1321
CR1322
R1226 5.11K
R1227 100K
Q1321
C1315 100
R1314 41.2K
R1313 2.00K
CR1323
VR1324 6.8V
R1225 4.75K
R1224 4.75K
R1321 4.75K
R1322 2K
Q1320
Q1322

C1302 1.0 uF
C1300 6.8uF
C1207 0.1
C1219 0.1
C1220 0.1
C1221 0.1
C1301 6.8uF

Static Sensitive Devices (See Maintenance Section)

COMPONENT NUMBER EXAMPLE

COMPONENT NUMBER
A23 A2 R1234
Assembly Number
Schematic Circuit Number
Subassembly Number (if needed)

Chassis-mounted components have no Assembly Number prefix-see end of Replaceable Electrical Parts List.

P/O A8 HIGH EDGE BD.

SEE
OTHER
SIDE

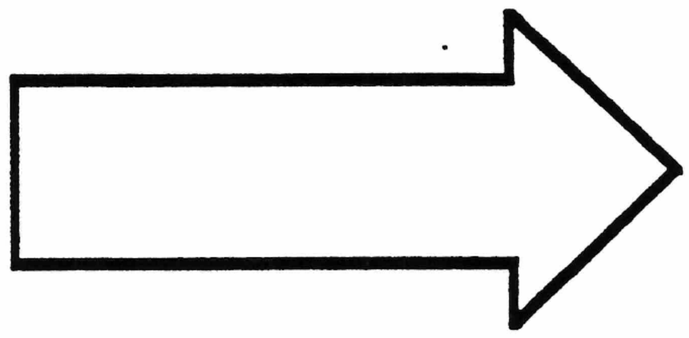
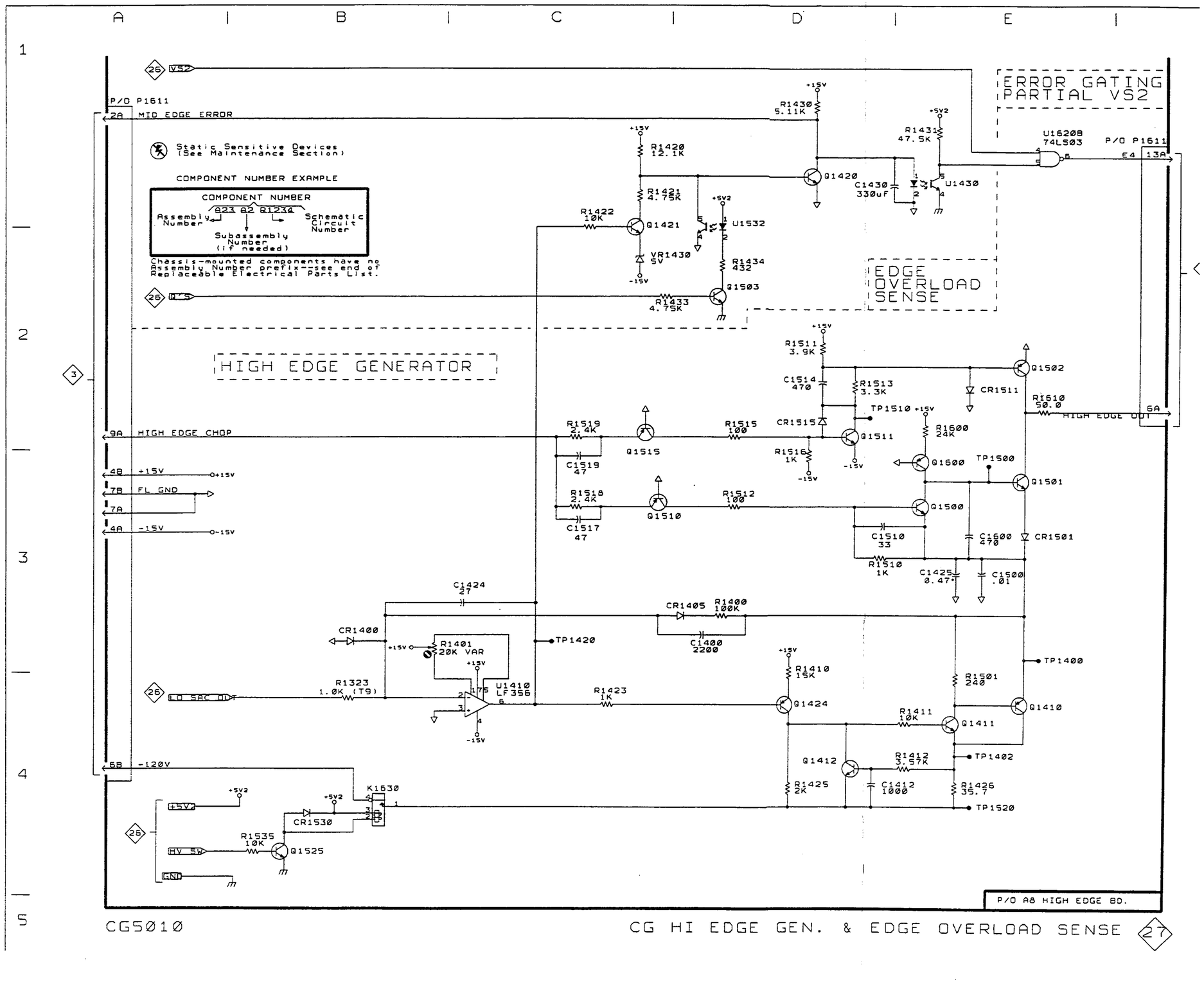


Table 9-30

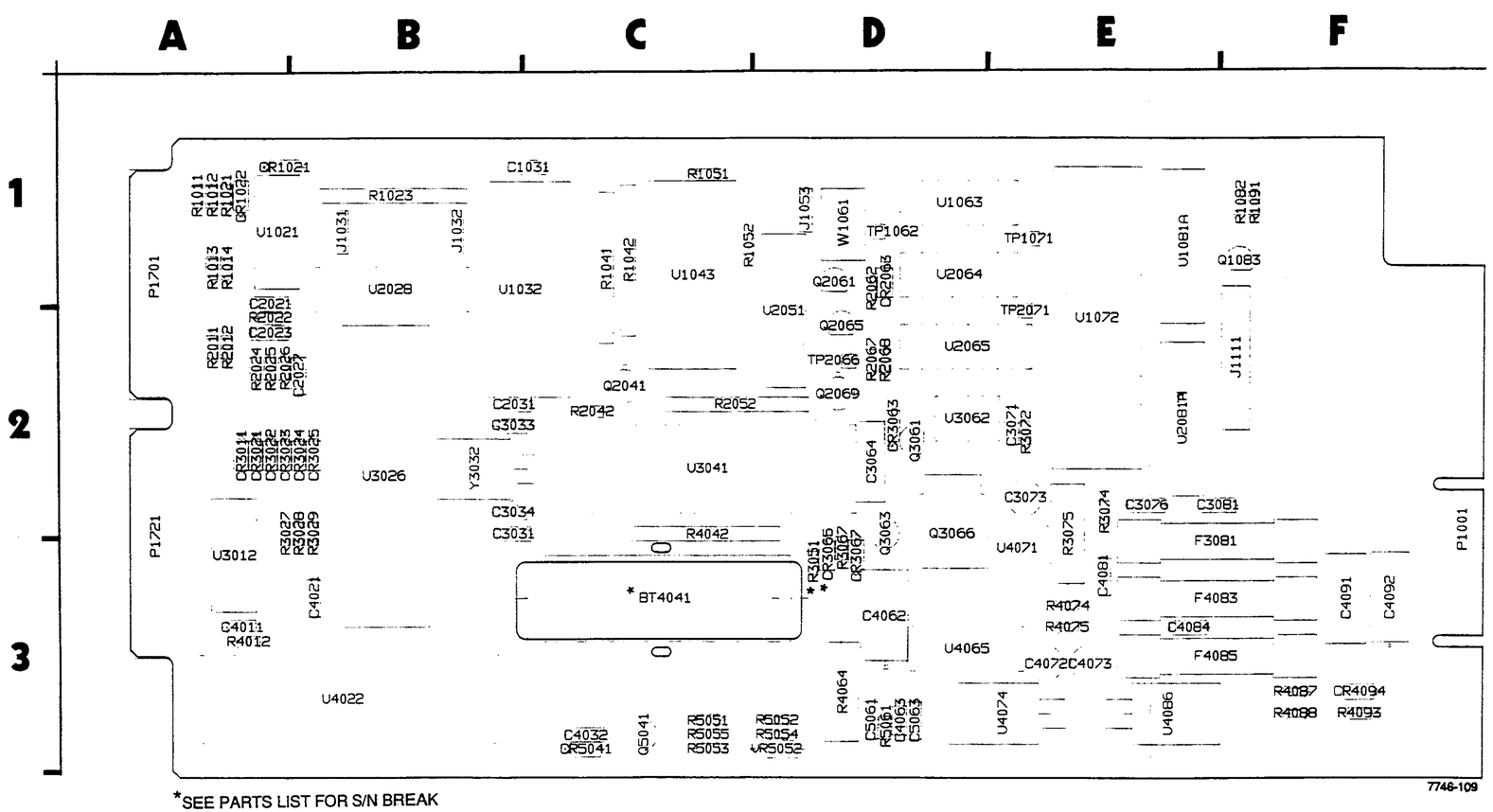
CG HI EDGE GEN. & EDGE OVERLOAD SENSE ◇27◇ — HIGH EDGE BOARD, ASSEMBLY A8

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C1400	D 3	E 1	Q1421	C 1	D 3	R1434	D 2	D 3
C1412	D 4	E 3	Q1424	D 4	E 3	R1501	E 4	E 1
C1424	C 3	D 3	Q1500	E 3	E 1	R1510	D 3	E 2
C1425	E 3	D 2	Q1501	E 3	E 1	R1511	D 2	E 2
C1430	D 1	D 3	Q1502	E 2	E 2	R1512	D 3	E 2
C1500	E 3	E 1	Q1503	D 2	E 3	R1513	D 2	E 2
C1510	D 3	E 2	Q1510	C 3	E 2	R1515	D 2	E 2
C1514	D 2	E 2	Q1511	D 2	E 2	R1516	D 3	E 2
C1517	C 3	E 2	Q1515	C 3	E 2	R1518	C 3	E 2
C1519	C 3	E 2	Q1525	B 4	E 3	R1519	C 2	E 2
C1600	E 3	F 1	Q1600	E 3	E 1	R1535	B 4	E 3
						R1600	E 2	F 1
CR1400	B 3	E 1	R1323	B 4	D 3	R1610	E 2	E 2
CR1405	D 3	E 1	R1400	D 3	E 1			
CR1501	E 3	F 1	R1401	C 3	D 1	TP1400	E 3	E 2
CR1511	E 2	E 2	R1410	D 3	D 2	TP1402	E 4	E 2
CR1515	D 2	E 2	R1411	E 4	E 2	TP1420	C 3	D 2
CR1530	B 4	E 3	R1412	E 4	E 3	TP1500	E 3	E 1
			R1420	C 1	D 3	TP1510	D 2	E 2
K1630	B 4	F 3	R1421	C 1	D 3	TP1520	E 4	E 3
			R1422	C 1	D 3			
P1611	A 1,F 1	F 1	R1423	C 4	D 3	U1410	C 4	D 2
			R1425	D 4	E 3	U1430	E 1	D 3
Q1410	E 4	D 2	R1426	E 4	E 3	U1532	D 1	E 3
Q1411	E 4	E 2	R1430	D 1	D 3	U1620B	E 1	F 2
Q1412	D 4	E 2	R1431	E 1	D 3			
Q1420	D 1	D 3	R1433	C 1	D 3	VR1430	C 2	D 3



CG5010

CG HI EDGE GEN. & EDGE OVERLOAD SENSE



*SEE PARTS LIST FOR S/N BREAK

A9

Fig. 9-59. CPU Board (A9).

SEE
OTHER
SIDE

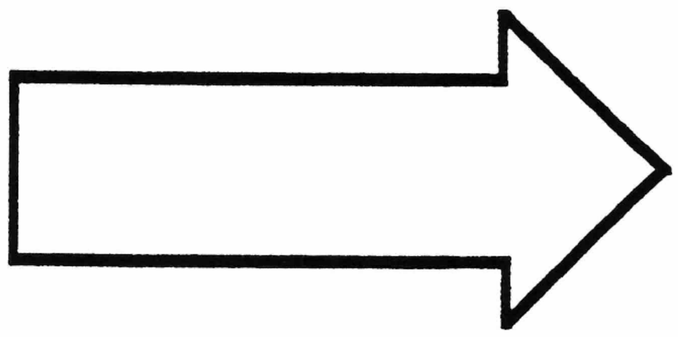
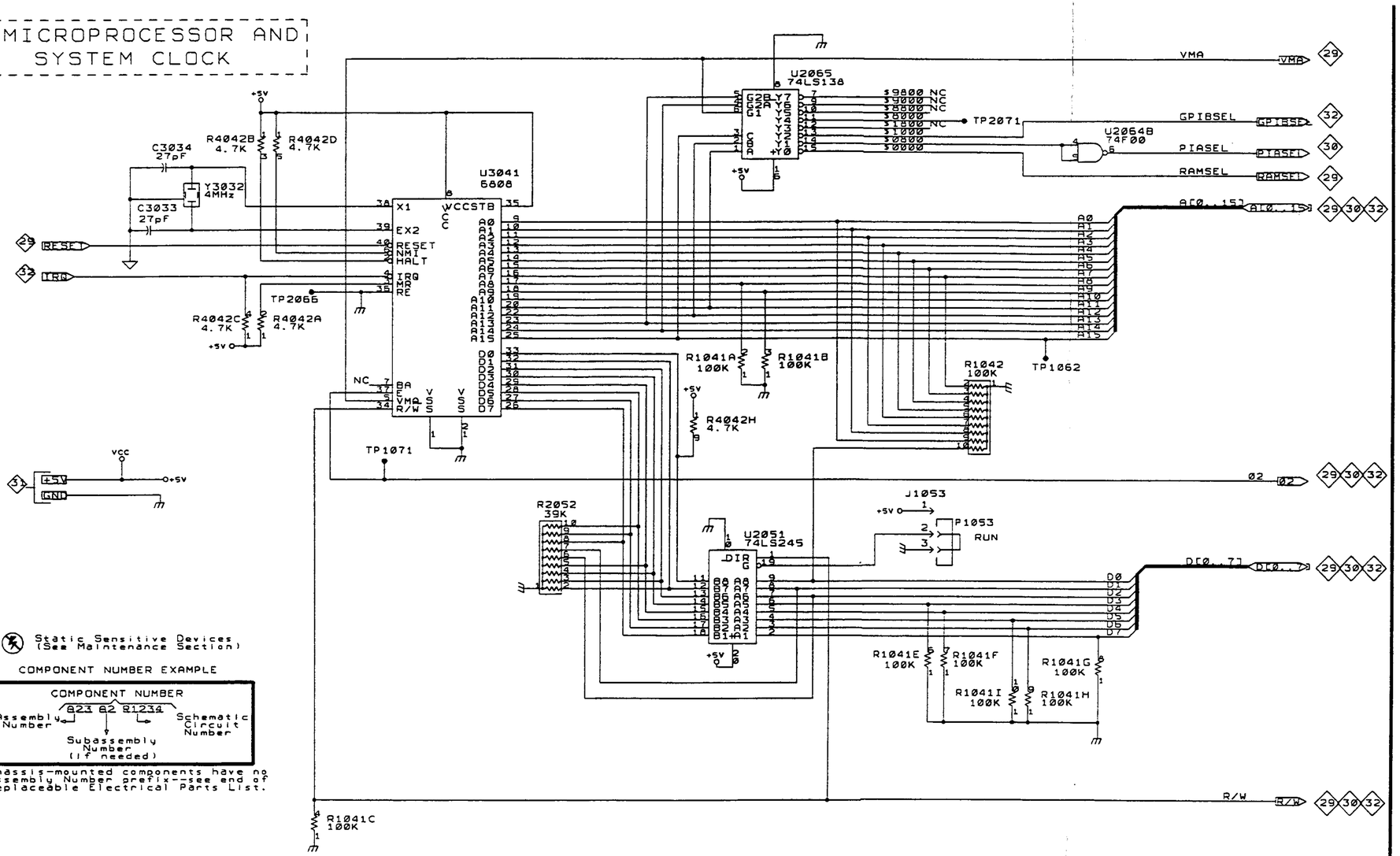


Table 9-31

MICROPROCESSOR AND SYSTEM CLOCK 28
— CPU BOARD, ASSEMBLY A9

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C3033	A 1	B 2	R4042A	B 2	C 2
C3034	A 1	B 2	R4042B	B 1	C 2
			R4042C	B 2	C 2
J1053	D 2	D 1	R4042D	B 1	C 2
			R4042H	C 2	C 2
P1053	D 2	JUMPER			
			TP1062	E 2	D 1
R1041A	D 2	C 1	TP1071	B 2	E 1
R1041B	D 2	C 1	TP2066	B 2	D 2
R1041C	B 4	C 1	TP2071	D 1	E 1
R1041E	D 3	C 1			
R1041F	D 3	C 1	U2051	D 3	D 1
R1041G	E 3	C 1	U2064B	E 1	D 1
R1041H	D 3	C 1	U2065	D 1	D 2
R1041I	D 3	C 1	U3041	C 1	C 2
R1042	D 2	C 1			
R2052	B 1	C 2	Y3032	B 1	B 2

MICROPROCESSOR AND SYSTEM CLOCK



Static Sensitive Devices
(See Maintenance Section)

COMPONENT NUMBER EXAMPLE

Chassis-mounted components have no Assembly Number prefix--see end of Replaceable Electrical Parts List.

POWER PIN TABLE

DEVICE TYPE	VCC VDD +5V	VSS GND
74F00	14	7

P/O A9 CPU BD.

SEE
OTHER
SIDE

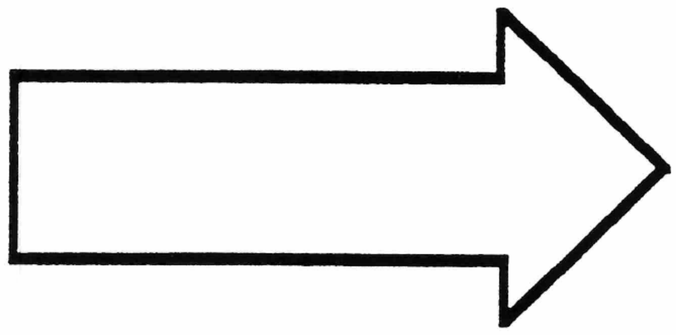


Table 9-32

MEMORY AND POWER ON/OFF DETECT — CPU BOARD, ASSEMBLY A9

29

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
BT4041*		C 3	R1052	E 2	C 1
			R2022	B 3	A 2
C2021	C 3	A 1	R2042	E 4	C 2
C3064	C 3	D 2	R2062	D 3	D 1
C3071	D 4	E 2	R2067	C 3	D 2
C3073	C 4	E 2	R2068	C 3	D 2
			R3051*		D 3
CR2063	C 3	D 1	R3067	B 3	D 3
CR3063	C 4	D 2	R3072	D 4	E 2
CR3065*		D 3	R3074	D 4	E 2
CR3067	B 3	D 3	R4042I	E 2	C 2
CR4094	B 3	F 3	R5051	B 3	C 3
			R5053	B 3	C 3
P1001	A 3	F 2			
			S1061	E 2	D 1
Q2041	E 2	C 2			
Q2061	E 2	D 2	U1021C	C 3	A 1
Q2065	D 3	D 2	U1032	C 1	C 1
Q2069	E 2	D 2	U1043	D 1	C 1
Q3061	C 4	D 2	U1063A	C 2	D 1
Q3063	C 2	D 2	U1063B	C 2	D 1
			U2064A	B 2	D 1
R1041D	C 2	C 1	U2064D	C 2	D 1
R1051	D 3	C 1	U3062	D 4	D 2

*SEE PARTS LIST FOR S/N BREAK

ROM

RAM

POWER ON/OFF DETECT & RESET

U1032 27C256A

U1043 5516

U1053A 74LS00

U1053B 74LS00

U2064A 74F00

U2064D 74F00

U1021C LM324

U3062 311

Q2061

Q2069

Q2041

Q2065

Q3063

Q3061

R4042I 4.7K

R1052 4.7K

R1041D 100K

R1051 4.7K

R3067 510

R5051 1.6K

R5053 1K

R2022 51K

C2021 0.047uF

R2068 8.2K

R2067 24K

R2062 1K

R3074 9.1K

C3073 15uF

R2042 680

R3072 100K

C3071 0.047uF

C3064 0.1uF,5%

S1061

CR4094

CR2063

CR3063

CR3067

A[0..15]

D[0..7]

VMA

Ø2

RAMSEL

R/W

PA10

A10

A15

POWER MODULE

P1001-68

PWR

RESET

+12V

+11.5

+8V

+5V

+2.5V

-12V

GND

VCC

Static Sensitive Devices (See Maintenance Section)

COMPONENT NUMBER EXAMPLE

COMPONENT NUMBER

A23 A2 R1234

Assembly Number

Subassembly Number (if needed)

Schematic Circuit Number

Chassis-mounted components have no Assembly Number prefix-see end of Replaceable Electrical Parts List.

P/O A9 CPU BD.

POWER PIN TABLE

DEVICE TYPE	VCC +5V	GND
74F00	14	7
74LS00	14	7

SEE
OTHER
SIDE

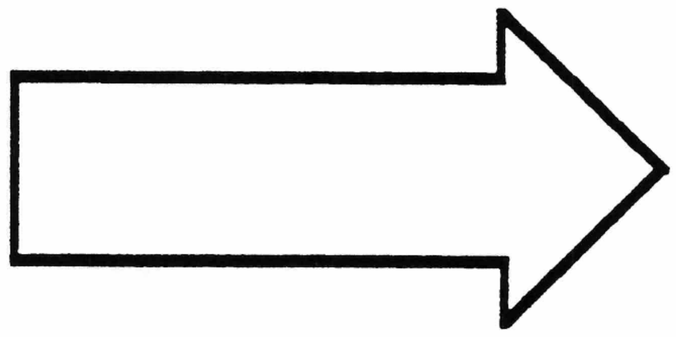
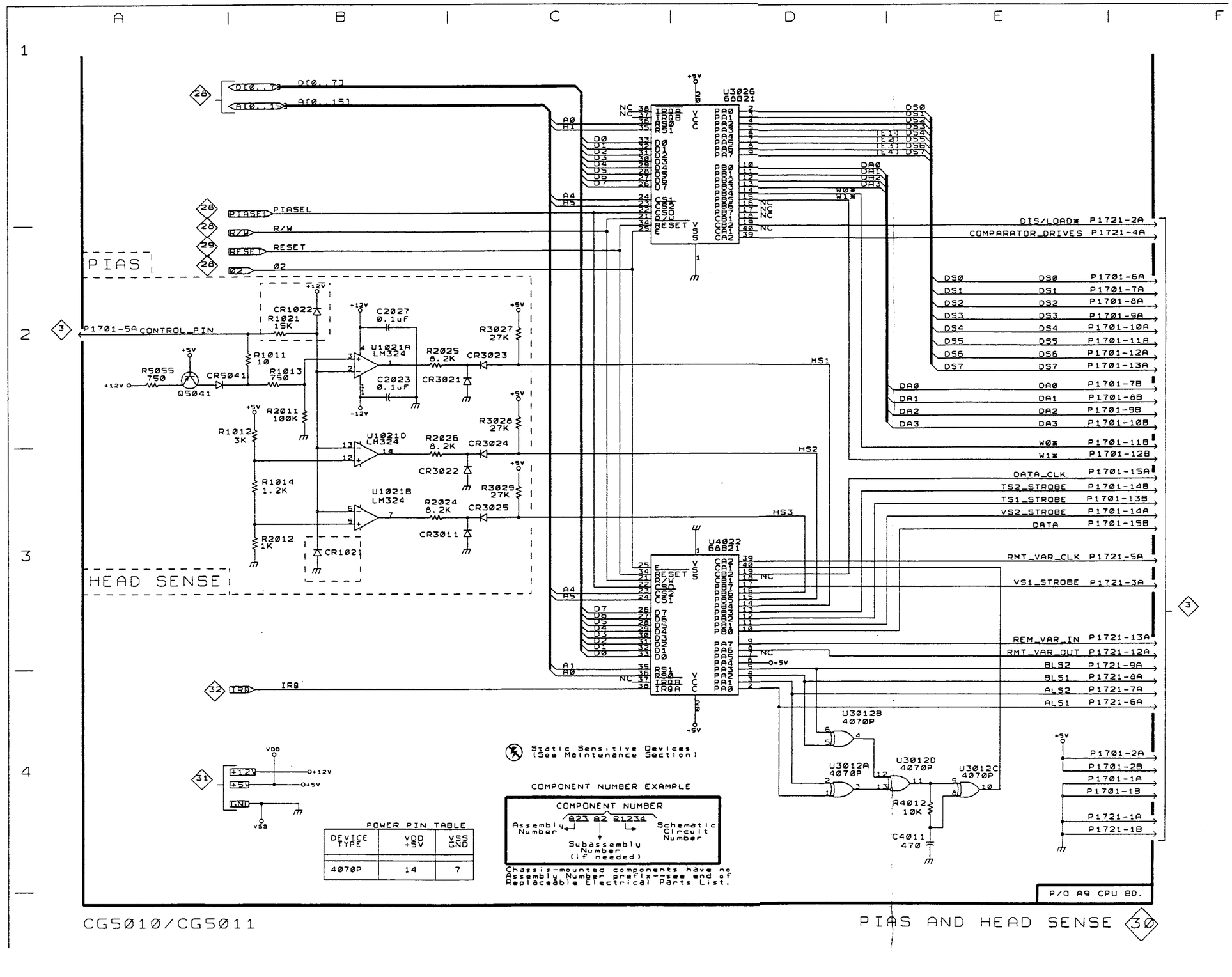


Table 9-33

PIAS AND HEAD SENSE 30
— CPU BOARD, ASSEMBLY A9

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C2023	B 2	A 2	R1014	B 3	A 1
C2027	B 2	B 2	R1021	B 2	A 1
C4011	E 4	A 3	R2011	B 2	A 2
			R2012	B 3	A 2
CR1021	B 3	A 1	R2024	C 3	A 2
CR1022	B 2	A 1	R2025	C 2	A 2
CR3011	C 3	A 2	R2026	C 3	A 2
CR3021	C 2	A 2	R3027	C 2	A 2
CR3022	C 3	A 2	R3028	C 2	B 2
CR3023	C 2	A 2	R3029	C 3	B 2
CR3024	C 2	B 2	R4012	E 4	A 3
CR3025	C 3	B 2	R5055	A 2	C 3
CR5041	A 2	C 3			
			U1021A	B 2	A 1
P1701	A 2,F 2, F 3,F 4	A 1	U1021B	B 3	A 1
			U1021D	B 2	A 1
P1721	F 3,F 4	A 2	U3012A	D 4	A 3
			U3012B	D 4	A 3
Q5041	A 2	C 3	U3012C	E 4	A 3
			U3012D	E 4	A 3
R1011	B 2	A 1	U3026	D 1	B 2
R1012	B 2	A 1	U4022	D 3	B 3
R1013	B 2	A 1			



CG5010/CG5011

PIAS AND HEAD SENSE 30

SEE
OTHER
SIDE

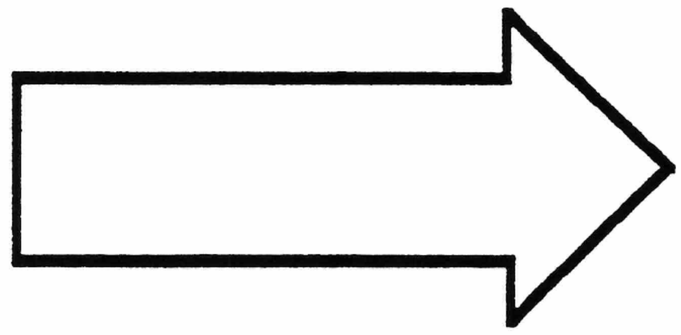
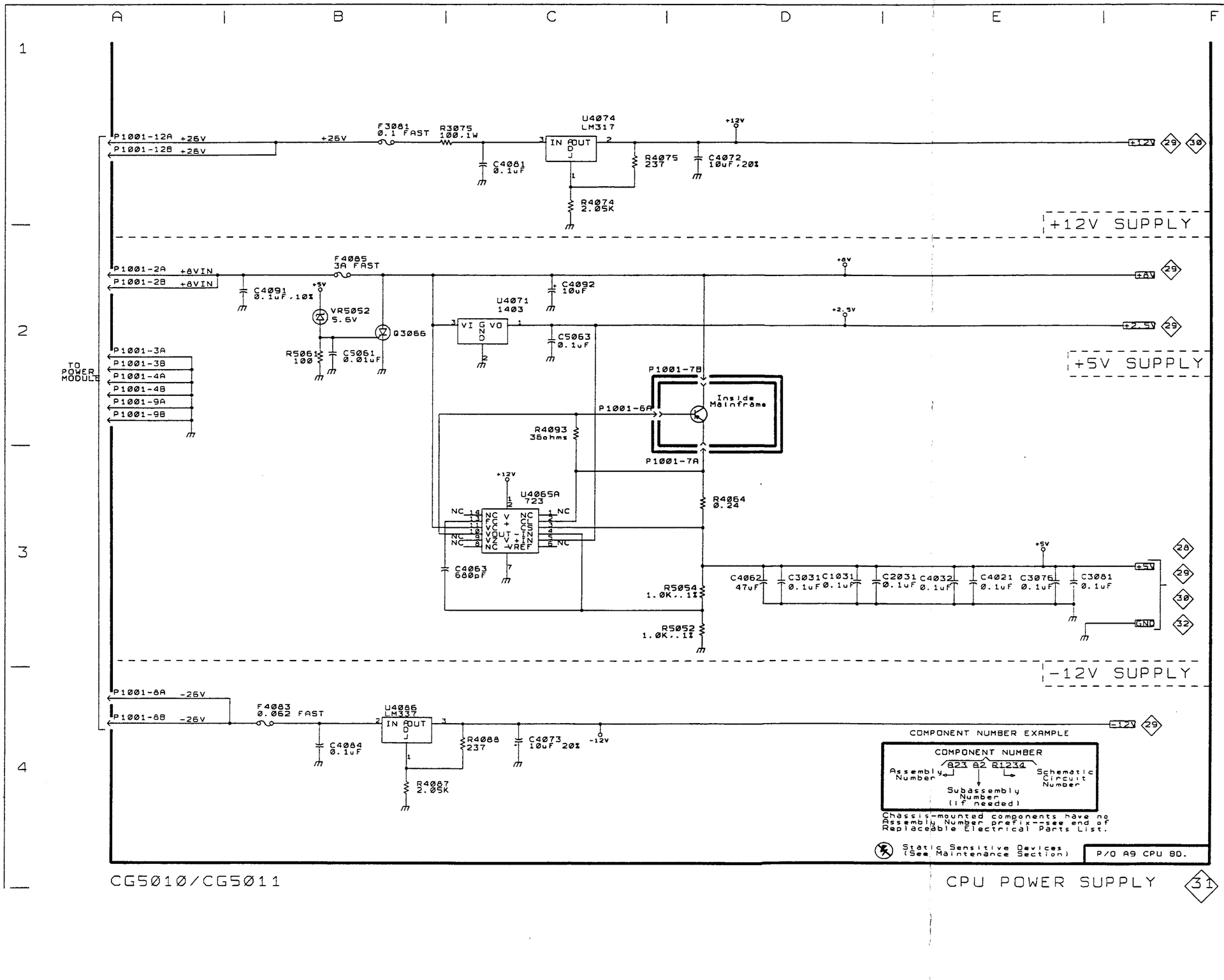


Table 9-34

CPU POWER SUPPLY 31
— CPU BOARD, ASSEMBLY A9

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
C1031	D 3	C 1	P1001	A 1,A 2,A 4, D 2,D 3	F 2
C2031	D 3	B 2			
C3031	D 3	B 2			
C3076	E 3	E 2	Q3066	B 2	D 2
C3081	E 3	F 2			
C4021	E 3	B 3	R3075	C 1	E 2
C4032	E 3	C 3	R4064	D 3	D 3
C4062	D 3	D 3	R4074	C 1	E 3
C4063	C 3	D 3	R4075	C 1	E 3
C4072	D 1	E 3	R4087	B 4	F 3
C4073	C 4	E 3	R4088	C 4	F 3
C4081	C 1	E 3	R4093	C 2	F 3
C4084	B 4	E 3	R5052	D 3	D 3
C4091	B 2	F 3	R5054	D 3	D 3
C4092	C 2	F 3	R5061	B 2	D 3
C5061	B 2	D 3			
C5063	C 2	D 3	U4065	C 3	D 3
			U4071	C 2	E 3
F3081	B 1	E 2	U4074	C 1	E 3
F4083	B 4	E 3	U4086	B 4	E 3
F4085	B 2	E 3			
			VR5052	B 2	D 3


A
B
C
D
E
F
1
2
3
4
P1001-12A +26V
P1001-12B +26V
+26V
F3081 0.1 FAST
R3075 100.1W
C4081 0.1uF
U4074 LM317
IN OUT ADJ
R4075 237
C4072 10uF,20%
+12V
R4074 2.05K
+12V
29
30
+12V SUPPLY
P1001-2A +8VIN
P1001-2B +8VIN
F4085 3A FAST
C4091 0.1uF,10%
+5V
VR5052 5.6V
Q3065
R5061 100
C5061 0.01uF
U4071 1403
VI G VO
C4092 10uF
C5063 0.1uF
+8V
+8V
+2.5V
+2.5V
+5V SUPPLY
TO POWER MODULE
P1001-3A
P1001-3B
P1001-4A
P1001-4B
P1001-9A
P1001-9B
P1001-7B
P1001-6A
P1001-7A
Inside Mainframe
R4093 35ohms
R4064 0.24
U4065A 723
C4063 680pF
R5054 1.0K,.1%
R5052 1.0K,.1%
C4062 47uF
C3031 0.1uF
C1031 0.1uF
C2031 0.1uF
C4032 0.1uF
C4021 0.1uF
C3076 0.1uF
C3081 0.1uF
+5V
GND
28
29
30
32
-12V SUPPLY
P1001-8A -26V
P1001-8B -26V
F4083 0.062 FAST
U4086 LM337
C4084 0.1uF
R4088 237
C4073 10uF 20%
-12v
R4087 2.05K
-12V
29
COMPONENT NUMBER EXAMPLE
COMPONENT NUMBER
A23 A2 R1234
Assembly Number
Subassembly Number (If needed)
Schematic Circuit Number
Chassis-mounted components have no assembly number prefix-see end of Replaceable Electrical Parts List.
Static Sensitive Devices (See Maintenance Section)
P/O A9 CPU BD.
CG5010/CG5011
CPU POWER SUPPLY
31

SEE
OTHER
SIDE

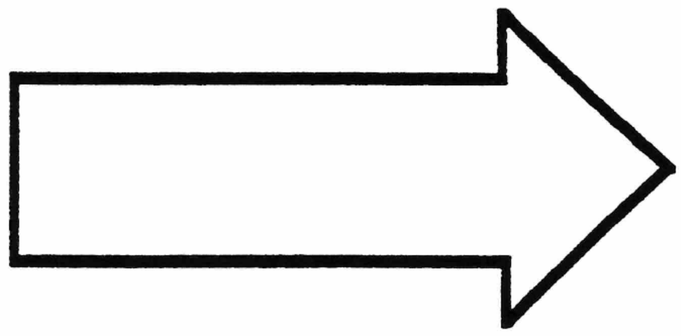


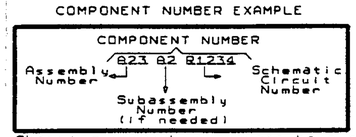
Table 9-35

GPIB ◇32◇ — CPU BOARD, ASSEMBLY A9

CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEMATIC LOCATION	BOARD LOCATION
J1031	A 1	B 1	R1082	E 4	F 1
J1032	A 1	B 1	R1091	D 4	F 1
J1111	F 2,F 3,F 4	F 2			
			U1063C	D 4	D 1
P1031	A 1	CHASSIS	U1063D	D 4	D 1
P1032	A 1	CHASSIS	U1072	C 2	E 2
P1701	F 4	A 1	U1081A	D 2	E 1
			U2028A	B 1	B 1
Q1083	E 4	F 1	U2028B	B 1	B 1
			U2064C	E 4	D 1
R1023	A 1	B 1	U2081A	D 3	E 2

Static Sensitive Devices
(See Maintenance Section)

COMPONENT NUMBER EXAMPLE



Chassis-mounted components have no Assembly Number prefix--see end of Replaceable Electrical Parts List.

GPIB

ADDRESS & CONTROL SWITCHES

P1032 J1032

P1031 J1031

R1023 10X14.7K

U2028A 74LS240

U2028B 74LS240

U1072 68488

U1081A 75160

U2081A 75161

U1063C 74LS00

U2064C 74F00

U1063D 74LS00

R1091 4.7K

R1082 4.7K

Q1083

DI0..7

AI0..15

GPIBSP

R/W

Ø2

RESET

VCC

+5V

GND

IRQ

GRANT

REQ

NC

DIO1 J1111-19
DIO2 J1111-17
DIO3 J1111-15
DIO4 J1111-13
DIO5 J1111-20
DIO6 J1111-18
DIO7 J1111-16
DIO8 J1111-14

SRQ J1111-8
ATN J1111-6
EOI J1111-11
DAV J1111-9
NRFD J1111-7
NDAC J1111-5
IFC J1111-10
REN J1111-4
J1111-12

LISTEN P1701-58
TALK P1701-68
TE* J1111-2

POWER PIN TABLE

DEVICE TYPE	VCC +5V	GND
74F00	14	7
74LS00	14	7

P/O A9 CPU BD.

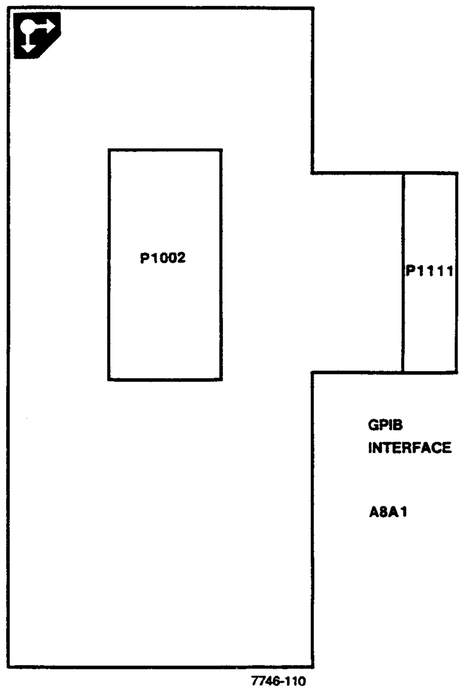
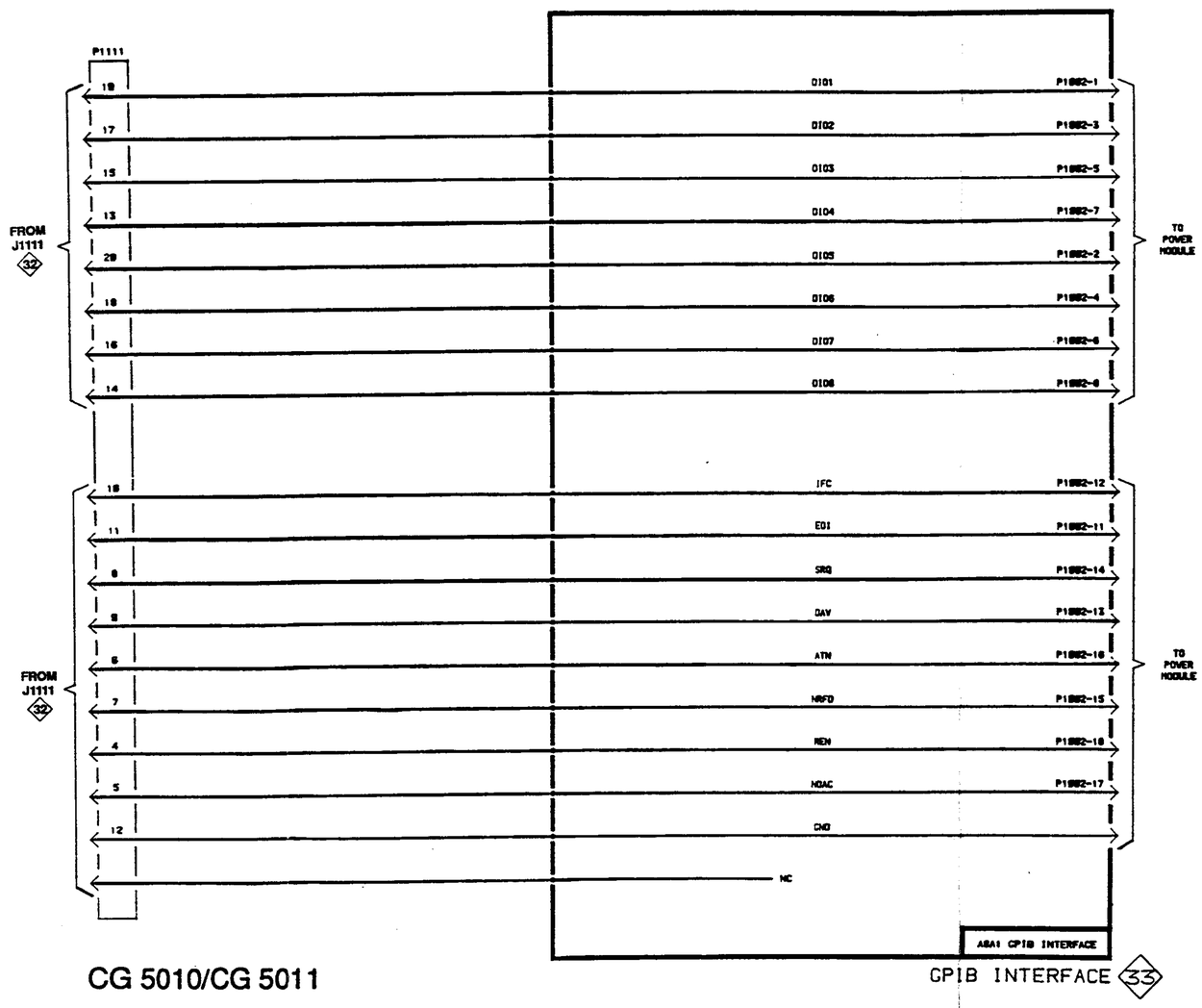


Fig. 9-60. GPIB Interface Board (A8A1).



CG 5010/CG 5011

(2815-173,4767-121)7746-90

Static Sensitive Devices
See Maintenance Section

COMPONENT NUMBER EXAMPLE

Component Number

A23 A2 R1234

Assembly Number — *Subassembly Number (if used)* — *Schematic Circuit Number*

Chassis-mounted components have no Assembly Number prefix—see end of Replaceable Electrical Parts List.

REPLACEABLE MECHANICAL PARTS

Parts Ordering Information

Replacement parts are available from or through your local Tektronix, Inc. service center or representative.

When ordering parts, it is important to include the following information in your order:

- Part number
- Instrument type or model number
- Instrument serial number
- Instrument modification number, if applicable

If a part you order has been replaced with a different or improved part, your local Tektronix service center or representative will contact you concerning any change in the part number.

Change information, if any, is located at the rear of this manual.

Module Servicing

Your module can be serviced by selecting one of the following three options:

- **Module Exchange.** In some cases you may exchange your module for a remanufactured module. These modules cost significantly less than new modules and meet the same factory specifications. For more information about the module exchange program, call 1-800-835-9433.
- **Module Repair and Return.** You may ship your module to us for repair, after which we will return it to you.
- **New Modules.** You may purchase new replacement modules in the same way as other replacement parts.

Using the Replaceable Parts List

The tabular information in the Replaceable Parts List is arranged for quick retrieval. Understanding the structure and features of the list will help you find all the information you need for ordering replacement parts.

Component Number (column 1)

Identifies the figure and index number used on the mechanical exploded view.

Tektronix Part Number(column 2)

Indicates part number to be used when ordering replacement part from Tektronix.

Serial Number (columns 3 & 4)

Column three (3) indicates the serial number at which the part was first used. Column four (4) indicates the serial number at which the part was removed. No serial number indicates part is good for all serial numbers.

Name and Description (column 5)

In the Parts List, an Item Name is separated from the description by a colon(:). Because of space limitations, an Item Name may sometimes appear as incomplete. For further Item Name identification, the U.S. Federal Cataloging Handbook H6-1 can be utilized where possible.

Indentation System

This parts list is indented to show the relationship between items. The following example is for the indentation system used in the Description column:

1	2	3	4	5	Name & Description
					Assembly and/or Component
					Attaching parts for Assembly and/or Component
					Detail Part of Assembly and/or Component
					Attaching parts for Detail Part
					Parts of Detail Part
					Attaching parts for Parts of Detail Part

Attaching parts always appear at the same indentation as the item it mounts, while the detail parts are indented to the right. Indented items are part of, and included with, the next higher indentation. Attaching parts must be purchased separately, unless otherwise specified.

Mfr. Code (column 6)

Indicates the code number of the actual manufacturer of the part. (Code to name and address cross reference can be found immediately after this page.)

Mfr. Part Number (column 7)

Indicates actual manufacturer's part number.

Abbreviations

Abbreviations conform to American National Standards Institute (ANSI) standard Y1.1.

CROSS INDEX – MFR CODE NUMBER TO MANUFACTURER

Mfr Code	Manufacturer	Address	City, State, Zip Code
01536	TEXTRON INC CAMCAR DIV	1818 CHRISTINA ST	ROCKFORD IL 61108
05276	ITT POMONA ELECTRONICS DIV	1500 E 9TH ST	POMONA CA 91766-3835
05820	EG AND G WAKEFIELD ENGINEERING	60 AUDUBON RD	WAKEFIELD MA 01880-1203
06383	PANDUIT CORP	17301 RIDGELAND	TINLEY PARK IL 07094-2917
07416	NELSON NAME PLATE CO	3191 CASITAS	LOS ANGELES CA 90039-2410
09922	BURNDY CORP	RICHARDS AVE	NORWALK CT 06852
0J260	COMTEK MANUFACTURING OF OREGON	PO BOX 4200	BEAVERTON OR 97076-4200
0J7N9	MCX INC	30608 SAN ANTONIO ST	HAYWARD CA 94544
0J9P9	GEROME MFG CO INC	PO BOX 737	NEWBURG OR 97132
0JR05	TRIQUEST CORP	3000 LEWIS AND CLARK HWY	VANCOUVER WA 98661-2999
0KB01	STAUFFER SUPPLY	810 SE SHERMAN	PORTLAND OR 97214
0KBZ5	MORELLIS Q & D PLASTICS	1812 16TH AVE	FOREST GROVE OR 97116
0KBZ8	SHELLEY-RAGON INC (DIST)	919 SW 150TH	SEATTLE WA 98166-1829
12327	FREEWAY CORP	9301 ALLEN DR	CLEVELAND OH 44125-4632
13103	THERMALLOY CO INC	2021 W VALLEY VIEW LN	DALLAS TX 75381
18722	RCA CORP	125 CRESTWOOD RD	MOUNTAINTOP PA 18707-2189
22152	NASHUA CORP	4402 N 23RD ST	OMAHA NE 68111
22526	DU PONT E I DE NEMOURS AND CO INC	515 FISHING CREEK RD	NEW CUMBERLAND PA 17070-3007
26365	GRIES DYNACAST CO	125 BEECHWOOD AVE	NEW ROCHELLE NY 10802
30161	AAVID ENGINEERING INC	ONE KOOL PATH	LACONIA NH 03247
46384	PENN ENGINEERING AND MFG CORP	OLD EASTON RD	DANBORO PA 18916
51167	ARIES ELECTRONICS INC	62 TRENTON AVE	FRENCHTOWN NJ 08825-1221
52072	CIRCUIT ASSEMBLY CORP	18 THOMAS ST	IRVINE CA 92718-2703
57771	STIMPSON CO INC	900 SYLVAN AVE	BAYPORT NY 11705-1012
71643	CHR INDUSTRIES INC	407 EAST ST	NEW HAVEN CT 06509
73743	FISCHER SPECIAL MFG CO	111 INDUSTRIAL RD	COLD SPRING KY 41076-9749
75915	LITTELFUSE INC	800 E NORTHWEST HWY	DES PLAINES IL 60016-3049
76854	OAK SWITCH SYSTEMS INC AN OAK INDUSTRIES INC CO	100 S MAIN ST PO BOX 517	CRYSTAL LAKE IL 60014-6201
78189	ILLINOIS TOOL WORKS INC	ST CHARLES ROAD	ELGIN IL 60120
7X318	KASO PLASTICS INC	11015 A NE 39th	VANCOUVER WA 98662
80009	TEKTRONIX INC	14150 SW KARL BRAUN DR	BEAVERTON OR 97077-0001
83486	ELCO INDUSTRIES INC	1101 SAMUELSON RD	ROCKFORD IL 61101
86928	SEASTROM MFG CO INC	701 SONORA AVE	GLENDALE CA 91201-2431
8X345	NORTHWEST SPRING & MFG CO	5858 WILLOW LANE	LAKE OSWEGO OR 97034-5343
91506	AUGAT INC	33 PERRY AVE	ATTLEBORO MA 02703-2417
93907	TEXTRON INC	600 18TH AVE	ROCKFORD IL 61108-5181
98159	RUBBER TECK INC	19115 HAMILTON AVE	GARDENA CA 90247
TK0303	FAB TEK INC	17 SUGAR HOLLOW RD	DANBURY CT 06810
TK0435	LEWIS SCREW CO	4300 S RACINE AVE	CHICAGO IL 60609-3320
TK0588	UNIVERSAL PRECISION PRODUCTS	1775 NW 216TH	HILLSBORO OR 97123
TK1312	LEMO USA INC	335 TESCONI CIR	SANTA ROSA CA 95406
TK1320	PLAINVIEW ELECTRONICS CORP	28 CAIN RD	PLAINVIEW NY 11803-4402
TK1465	BEAVERTON PARTS MFG CO	1800 NW 216TH AVE	HILLSBORO OR 97124-6629
TK1643	PETERS-DELAET INC	7911 NE 33RD DR	PORTLAND OR 97211
TK1828	LITE SPECIALTY METAL WORKS	409 N WASHINGTON	NEWBERG OR 97132
TK1943	NEILSEN METAL INDUSTRIES INC	3501 PORTLAND ROAD NE	SALEM OR 97303

Replaceable Mechanical Parts

Fig. & Index No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Qty	12345 Part Name & Description	Mfr Code	Mfr Part Number
1 -1	337-2665-01			2	SHIELD,ELEC:SIDE,LEFT	TK1943	ORDER BY DESCRIPTION
-2	366-1707-01			1	KNOB:GY,VAR,0.127 ID X 0.5 OD X0.531 H	0JR05	ORDER BY DESCRIPTION
-3	366-1737-00			1	KNOB:GY,0.252 ID X 0.7 OD X 0.52 H	0JR05	ORDER BY DESCRIPTION
-4	----- -----			1	SWITCH,ROTARY:FRONT PANEL,CG5010 (SEE A1S1121 REPL) (ATTACHING PARTS)		
-5	210-0413-00			1	NUT,PLAIN,HEX:0.375-32 X 0.5,BRS CD PL	73743	3145-402
-6	210-0013-00			1	WASHER,LOCK:0.391 ID INTL,0.035 THK,STL (END ATTACHING PARTS)	78189	1220-00-00-0541C
-7	366-1851-01			2	KNOB,LATCH:IVORY GY,0.625 X 0.25 X	0JR05	ORDER BY DESCRIPTION
-8	214-3143-00			2	SPRING,HLEXT:0.125 OD X 0.545 L,XLOOP	8X345	ORDER BY DESCRIPTION
-9	105-0866-00			2	LATCH,RETAINING:	0JR05	ORDER BY DESCRIPTION
-10	105-0865-00			2	BAR,LATCH RLSE:	0JR05	ORDER BY DESCRIPTION
-11	175-2830-00			1	CABLE ASSY,RF:50 OHM COAX,17.0 L,6-0	80009	175-2830-00
-12	131-1471-00			1	CONN,CIRC:SLDR CUP,;3 MALE,3 FEMALE,6 POS	TK1312	ERA.1S.306.CNL
-13	119-0238-00			1	COIL,CAL: (ATTACHING PARTS)	TK1943	ORDER BY DESCRIPTION
-14	210-0442-00			2	NUT,PLAIN,HEX:3-48 X 0.188,BRS CD PL	73743	3014-402
-15	210-0259-00			2	TERMINAL,LUG:0.099 ID,LOCKING,BRS CD PL	86928	ORDER BY DESCRIPTION
-16	210-0994-00			2	WASHER,FLAT:0.125 ID X 0.25 OD X 0.022,STL	12327	ORDER BY DESCRIPTION
-17	210-0849-00			2	WASHER,SHLDR:0.11 ID X 0.187 OD X 0.062THK	86928	5604-41
-18	210-0224-00			2	TERMINAL,LUG:0.2 ID,PLAIN,BRS TIN PL (END ATTACHING PARTS)	86928	A373-148-1
-19	210-0593-00			2	NUT,FINISHING:3-48 X 0.25 HEX,BRS NP	80009	210-0593-00
-20	361-0059-01			1	INSULATOR,PLATE:1.093 X 0.343 X 0.125	0JR05	ORDER BY DESCRIPTION
-21	175-2824-00			1	CABLE ASSY,RF:1,26 AWG,1.25 L,9-N,1,26 AWG	80009	175-2824-00
-22	352-0169-09			1	HLDR,TERM CONN:2 WIRE,WHITE	80009	352-0169-09
-23	175-2823-00			1	LEAD ASSY,ELEC:5,26 AWG,3.0 L	0J7N9	ORDER BY DESCRIPTION
-24	333-3802-00	B010100	B010209	1	PANEL,FRONT:	07416	ORDER BY DESCRIPTION
	333-3802-01	B010210		1	PANEL,FRONT:CG5010 (CG5010 & OPTION 01 ONLY)	80009	333-3802-01
-25	333-3801-00	B010100	B010329	1	PANEL,FRONT:	07416	ORDER BY DESCRIPTION
	333-3801-01	B010330		1	PANEL,FRONT:CG5011 (CG5011 ONLY)	80009	333-3801-01
-26	333-3803-00			1	PANEL,REAR: (ATTACHING PARTS)	07416	ORDER BY DESCRIPTION
-27	213-0868-00			4	SCREW,TPG,TF:6-32 X 0.375 L,FILH,STL	93907	ORDER BY DESCRIPTION
-28	386-3657-01			4	SUPPORT,PLUG-IN: (END ATTACHING PARTS)	83486	ORDER BY DESCRIPTION
-29	426-2374-00			1	FR SECT,PLUG-IN:TOP (ATTACHING PARTS)	TK1465	ORDER BY DESCRIPTION
-30	211-0541-00			2	SCREW,MACHINE:6-32 X 0.25,FLH,100 DEG,STL (END ATTACHING PARTS)	93907	ORDER BY DESCRIPTION
-31	214-1061-00			2	CONTACT,ELEC:GROUNDING,CU BE	80009	214-1061-00
-32	214-3089-01			2	LOCKOUT,PLUG-IN:PLASTIC	0JR05	ORDER BY DESCRIPTION
-33	337-3640-00			1	SHIELD,ELEC:TOP (ATTACHING PARTS)	TK1465	ORDER BY DESCRIPTION
-34	211-0541-00			2	SCREW,MACHINE:6-32 X 0.25,FLH,100 DEG,STL (END ATTACHING PARTS)	93907	ORDER BY DESCRIPTION
-35	426-2374-00			1	FR SECT,PLUG-IN:TOP (ATTACHING PARTS)	TK1465	ORDER BY DESCRIPTION
-36	211-0541-00			2	SCREW,MACHINE:6-32 X 0.25,FLH,100 DEG,STL (END ATTACHING PARTS)	93907	ORDER BY DESCRIPTION
-37	337-3645-00			1	SHIELD,ELEC:RIGHT,INTERNAL	TK1943	ORDER BY DESCRIPTION
-38	351-0604-00			11	GUIDE,CKT BOARD:PLASTIC	0JR05	ORDER BY DESCRIPTION
-39	337-3646-00			1	SHIELD,ELEC:LEFT,INTERNAL	TK1943	ORDER BY DESCRIPTION
-40	426-2373-00			1	FR SECT,PLUG-IN:BOTTOM (ATTACHING PARTS)	TK1465	ORDER BY DESCRIPTION
-41	211-0502-00			2	SCREW,MACHINE:6-32 X 0.188,FLH,100 DEG,STL (END ATTACHING PARTS)	TK0435	ORDER BY DESCRIPTION
-42	337-3641-00			1	SHIELD,ELEC:BOTTOM (ATTACHING PARTS)	TK1465	ORDER BY DESCRIPTION
-43	211-0502-00			2	SCREW,MACHINE:6-32 X 0.188,FLH,100 DEG,STL (END ATTACHING PARTS)	TK0435	ORDER BY DESCRIPTION
-44	426-2373-00			1	FR SECT,PLUG-IN:BOTTOM,CG5010 (ATTACHING PARTS)	TK1465	ORDER BY DESCRIPTION

Fig. & Index No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Qty	12345 Part Name & Description	Mfr Code	Mfr Part Number
1 -45	211-0502-00			2	SCREW,MACHINE:6-32 X 0.188,FLH,100 DEG,STL (END ATTACHING PARTS)	TK0435	ORDER BY DESCRIPTION
-46	386-6017-01	B010100	B010209	1	SUBPANEL,FRONT:ALUMINUM	80009	386-6017-01
	386-6017-02	B010210		1	SUBPANEL,FRONT:ALUMINUM (CG5010 & OPTION 01 ONLY)	80009	386-6017-02
	386-6017-01	B010100	B010329	1	SUBPANEL,FRONT:ALUMINUM	80009	386-6017-01
	386-6017-02	B010330		1	SUBPANEL,FRONT:ALUMINUM (CG5011 ONLY) (ATTACHING PARTS)	80009	386-6017-02
-47	211-0097-00			1	SCREW,MACHINE:4-40 X 0.312,PNH,STL (END ATTACHING PARTS)	93907	ORDER BY DESCRIPTION
-48	----- -----			1	CIRCUIT BD ASSY:FRONT PANEL (SEE A1 REPL)		
-48.1	136-1094-00			6	.SKT,PL-IN ELEK:DIP,PCB,STR,10 POS,2 X 5,0	51167	10-2511-10
-48.2	136-1095-00			4	.SKT,PL-IN ELEK:SIP,PCB,FEMALE,STR,1 X 11	52072	CA-S11SLP-TSD
-48.3	352-0955-00			3	.HOLDER,LAMP:10 LED,PLASTIC (CG5010 & OPTION 01 ONLY)	7X318	ORDER BY DESCRIPTION
	352-0955-00			4	.HOLDER,LAMP:10 LED,PLASTIC (CG5011 ONLY)	7X318	ORDER BY DESCRIPTION
-48.4	366-0733-00			8	.KNOB,KEYCAP:UNLIT (CG5010 & OPTION 01 ONLY)	OKBZ5	ORDER BY DESCRIPTION
	366-0733-00			7	.KNOB,KEYCAP:UNLIT (CG5011 ONLY)	OKBZ5	ORDER BY DESCRIPTION
-48.5	366-0732-00			18	.KNOB,KEYCAP:LIGHTED (CG5010 & OPTION 01 ONLY)	OKBZ5	ORDER BY DESCRIPTION
	366-0732-00			15	.KNOB,KEYCAP:LIGHTED (CG5011 ONLY) (ATTACHING PARTS)	OKBZ5	ORDER BY DESCRIPTION
-48.6	136-0252-07			1	.SOCKET,PIN TERM:SINGLE,PCB,T/G,0.030 H	22526	75060-012
-49	211-0003-00			6	SCREW,MACHINE:2-56 X 0.875,PNH,STL	93907	ORDER BY DESCRIPTION
-49.1	361-1552-00			6	SPACER,SLEEVE:0.15 L X 0.25 OD X 0.125 ID (END ATTACHING PARTS)	OKB01	ORDER BY DESCRIPTION
-51	----- -----			1	CIRCUIT BD ASSY:MAIN (SEE A2 REPL)		
-51.1	386-4211-00			1	.SUPPORT,CKT BD:ALUMINUM	TK1943	ORDER BY DESCRIPTION
-51.2	210-0630-00			3	.EYELET,METALLIC:0.089 OD X 0.187 L,BRASS (ATTACHING PARTS)	57771	SE-36
-52	211-0292-00			2	SCR,ASSEM WSHR:4-40 X 0.29,PNH,BRS NI PL	01536	ORDER BY DESCRIPTION
-53	386-4212-00			2	SUPPORT,CKT BD:ALUMINUM (END ATTACHING PARTS)	TK1828	ORDER BY DESCRIPTION
-54	211-0105-00			2	SCREW,MACHINE:4-40 X 0.188,FLH,100 DEG,STL	TK0435	ORDER BY DESCRIPTION

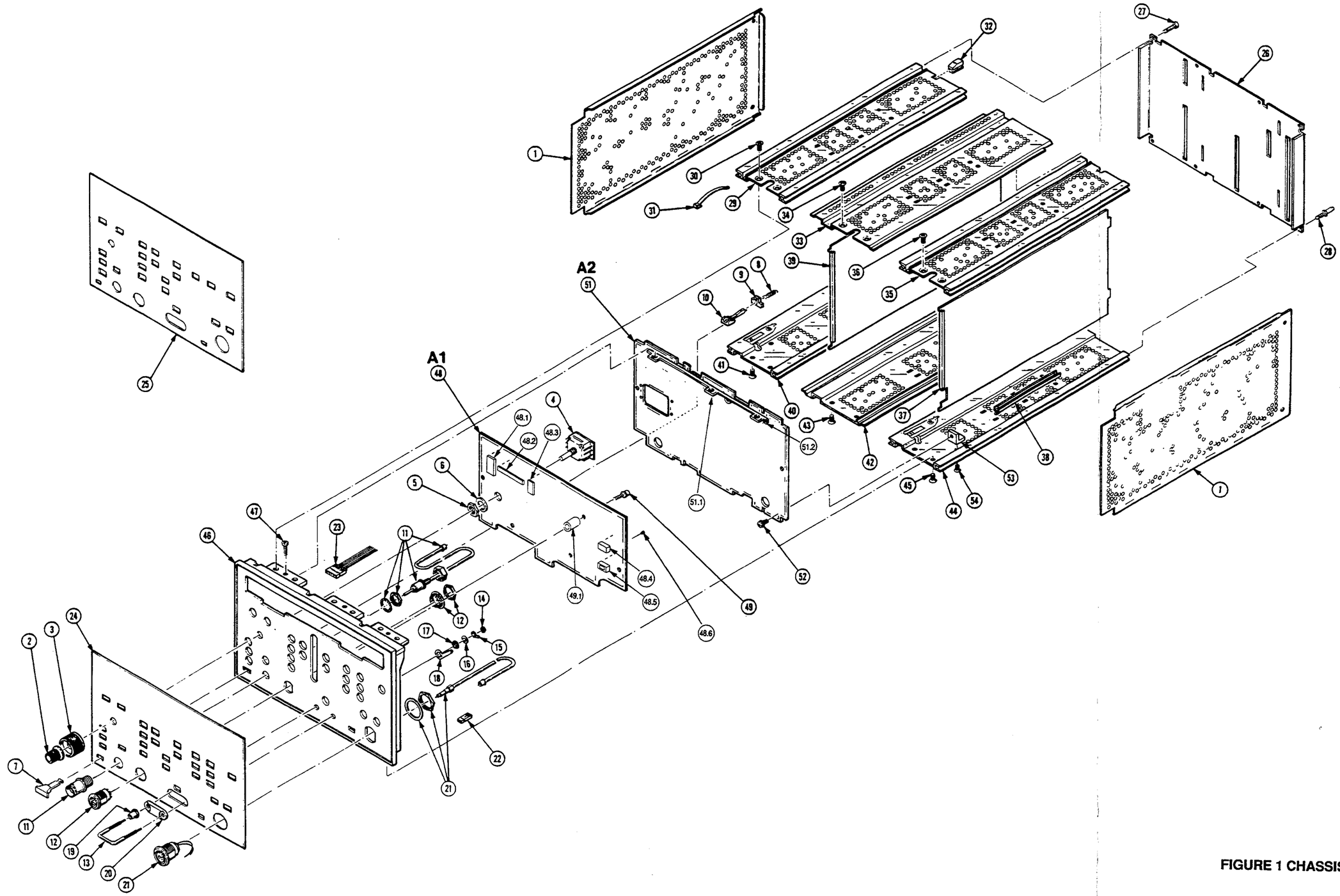


FIGURE 1 CHASSIS

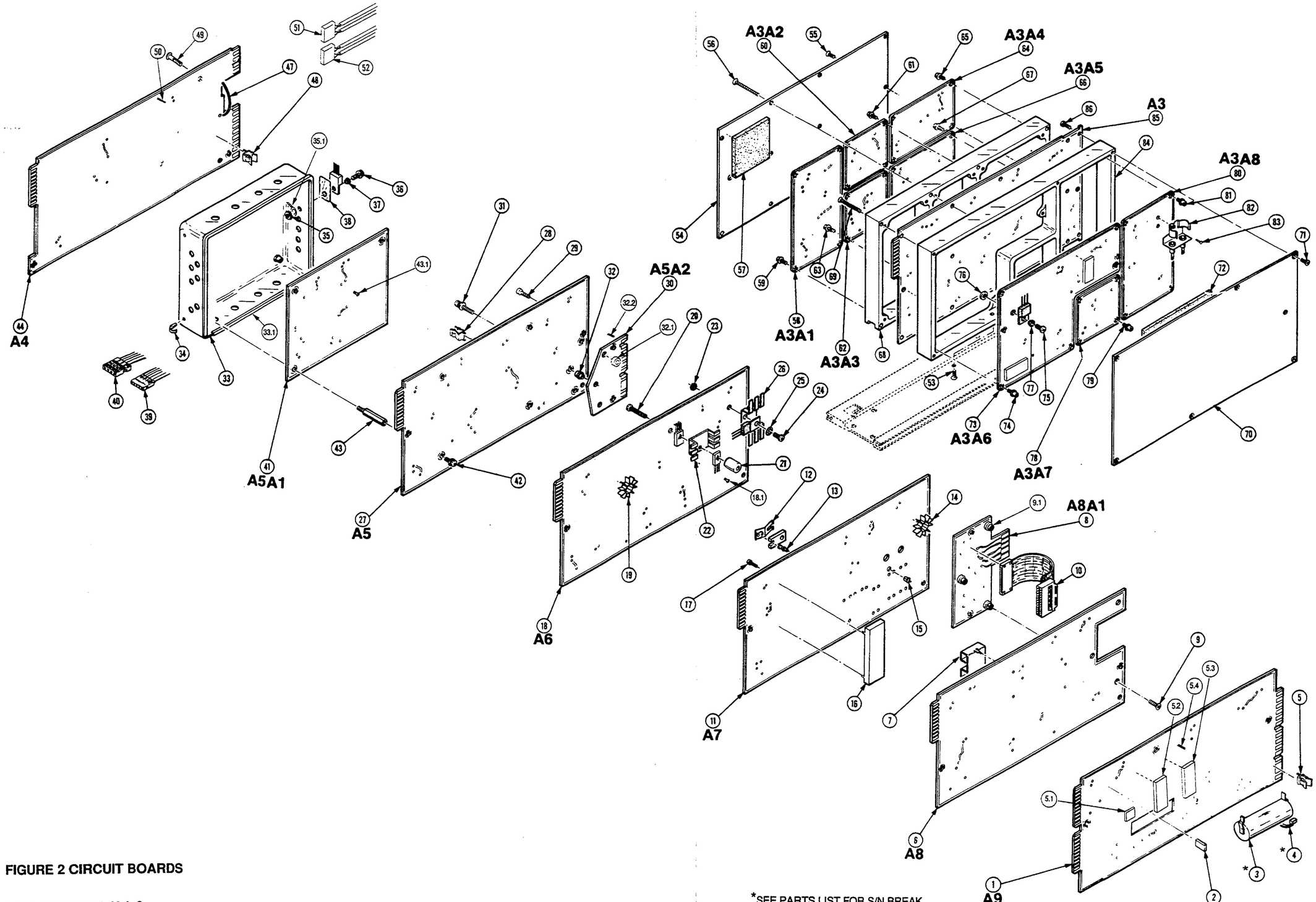


FIGURE 2 CIRCUIT BOARDS

Fig. & Index No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Qty	12345 Part Name & Description	Mfr Code	Mfr Part Number
2 -1	----- -----	B010100	B010532	1	CIRCUIT BD ASSY:CPU		
	----- -----	B010533	B010963	1	CIRCUIT BD ASSY:CPU		
	----- -----	B010964		1	CIRCUIT BD ASSY:CPU (SEE A9 REPL) (CG5011 ONLY)		
	----- -----	B010100	B010209	1	CIRCUIT BD ASSY:CPU		
	----- -----	B010210		1	CIRCUIT BD ASSY:CPU (SEE A9 REPL) (CG5010 & OPTION 01 ONLY)		
-2	131-0993-00			3	.BUS,CONDUCTOR:SHUNT/SHORTING,;FEMALE,STR,1 (SEE A9P1031,P1032,P1053 REPL)	22526	65474-006
-3	----- -----	B010100	B010209	1	.BATTERY,DRY:3.4V,1.75AH,AA CELL (SEE A9BT4041) (CG5010 & OPTION 01 ONLY)		
	----- -----	B010100	B010532	1	.BATTERY,DRY:3.4V,1.75AH,AA CELL (SEE A9BT4041) (CG5011 & OPTION 01 ONLY)		
-4	343-0549-00	B010100	B010209	1	.STRAP,TIEDOWN,E:0.098 W X 4.0 L,ZYTEL (CG5010 & OPTION 01 ONLY)	06383	PLT1M
	343-0549-00	B010100	B010532	1	.STRAP,TIEDOWN,E:0.098 W X 4.0 L,ZYTEL (CG5011 & OPTION 01 ONLY)	06383	PLT1M
-5	344-0326-00			6	.CLIP,ELECTRICAL:FUSE,BRASS	75915	102071
-5.1	253-0135-00			AR	.PLASTIC STRIP:VINYL FOAM,0.062 X 0.5	22152	ORDER BY DESCRIPTION
-5.2	136-0755-00			1	.SOCKET,DIP:PCB,;FEMALE,STR,2 X 14,28 POS (USED FOR A9U1032)	09922	DILB28P-108
-5.3	136-0751-00	B010210		1	.SOCKET DIP:PCB,;STR,2 X 12,24 POS,0.1 X 0.6 (CG5010 & OPTION 01 ONLY, USED FOR A9U1043)	09922	DILB24P108
	136-0751-00	B010533		1	.SOCKET DIP:PCB,;STR,2 X 12,24 POS,0.1 X 0.6 (CG5011 ONLY, USED FOR A9U1043)	09922	DILB24P108
-5.4	131-0608-00			9	.TERMINAL,PIN:PRESSFIT/PCB,;MALE,STR,0.025	22526	48283-036
-6	----- -----			1	CIRCUIT BD ASSY:HIGH EDGE (SEE A8 REPL)		
-7	214-2518-00			1	.HEAT SINK,XSTR:TO-220 OR TO-202	TK0303	332-612
-8	----- -----			1	CIRCUIT BD ASSY:GPIB INTERFACE (SEE A8A1 REPL) (ATTACHING PARTS)		
-9	211-0102-00			3	SCREW,MACHINE:4-40 X 0.5,FLH,100 DEG,STL (END ATTACHING PARTS) CKT BOARD ASSY INCLUDES:	93907	ORDER BY DESCRIPTION
-9.1	129-0802-00			3	.SPACER,POST:0.31,4-40 THRU,BRS,0.25 OD	0KB01	ORDER BY DESCRIPTION
-10	175-4464-00			1	.CA ASSY,SP,ELEC:20,28 AWG,2.5 L,RIBBON	0KBZ8	ORDER BY DESCRIPTION
-11	----- -----	B010100	B010207	1	CIRCUIT BD ASSY:OUTPUT		
	----- -----	B010208	B010215	1	CIRCUIT BD ASSY:OUTPUT		
	----- -----	B010216		1	CIRCUIT BD ASSY:OUTPUT (SEE A7 REPL) (CG5010 & OPTION 01 ONLY)		
	----- -----	B010100	B010399	1	CIRCUIT BD ASSY:OUTPUT		
	----- -----	B010400	B010961	1	CIRCUIT BD ASSY:OUTPUT		
	----- -----	B010962		1	CIRCUIT BD ASSY:OUTPUT (SEE A7 REPL) (CG5011 ONLY)		
-12	344-0248-00			3	.CLIP,ATTENUATOR:0.866 L,CU BE	80009	344-0248-00
-13	214-1797-00			6	.PIN,ATTEN CLIP:	80009	214-1797-00
-14	214-1292-00			2	.HEAT SINK,XSTR:TO-5,SIL BRZ PTD BLACK	05820	205SB
-15	131-0157-00			3	.TERMINAL,PIN:0.25 L X 0.04 OD,BRS,SLDR PL	05276	013-100-1000-479
-16	337-3608-00			1	.SHIELD,ELEC:ATTENUATOR,SAC,OUTPUT CIRCUIT	80009	337-3608-00
-17	213-1028-00			28	.SCREW,MACHINE:0-40 X 0.3125,PNH	93907	ORDER BY DESCRIPTION
-18	----- -----	B010100	B010168	1	CIRCUIT BD ASSY:REFERENCE		
	----- -----	B010169		1	CKT BD SUBASSY:REFERENCE (SEE A6 REPL) (CG5010 & OPTION 01 ONLY)		
	----- -----	B010100	B010187	1	CIRCUIT BD ASSY:REFERENCE		
	----- -----	B010188		1	CKT BD SUBASSY:REFERENCE (SEE A6 REPL) (CG5011 ONLY)		
-18.1	136-0252-07			67	.SOCKET,PIN TERM:SINGLE,PCB,T/G,0.030 H	22526	75060-012
-19	214-1292-00			2	.HEAT SINK,XSTR:TO-5,SIL BRZ PTD BLACK	05820	205SB
-20	211-0152-00			1	.SCR,ASSEM WSHR:4-40 X 0.625,PNH,BRS,NP,POZ	78189	ORDER BY DESCRIPTION
-21	129-0143-00			1	.SPACER,POST:0.406 L,4-40 THRU,NYLON0.312 OD	TK0588	ORDER BY DESCRIPTION
-22	214-3309-00			1	.HEAT SINK,XSTR:TO-202 OR TO-220,AL	30161	5069B
-23	210-0406-00			1	.NUT,PLAIN,HEX:4-40 X 0.188,BRS CD PL	73743	12161-50
-24	211-0008-00			1	SCREW,MACHINE:4-40 X 0.25,PNH,STL	93907	ORDER BY DESCRIPTION
-25	210-1122-00			1	WASHER,LOCK:0.12 ID,DISHED,0.025 THK,STL	0KB01	ORDER BY DESCRIPTION
-26	214-2955-00			1	HEAT SINK,XSTR:TO-220,AL	13103	6070B

Fig. & Index No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Qty	12345 Part Name & Description	Mfr Code	Mfr Part Number
2 -27	----- -----			1	CIRCUIT BD ASSY:PS MAIN		
					(SEE A5 REPL)		
-28	344-0326-00			4	.CLIP,ELECTRICAL:FUSE,BRASS	75915	102071
-29	211-0315-00			1	SCR,ASSEM WSHR:4-40 X 0.437,PHN,STL CD PL	78189	ORDER BY DESCRIPTION
-30	----- -----			1	CIRCUIT BD ASSY:PS INTERFACE		
					(SEE A5A2 REPL)		
					(ATTACHING PARTS)		
-31	211-0116-00			2	SCR,ASSEM WSHR:4-40 X 0.312,PNH,BRS,NP,POZ	OKB01	ORDER BY DESCRIPTION
					(END ATTACHING PARTS)		
					CKT BOARD ASSY INCLUDES:		
-32	129-0320-00			3	.SPACER,POST:0.15 L,4-40,BRS,CU SN ZN PL	OKB01	ORDER BY DESCRIPTION
-32.1	129-0442-00			1	.SPACER,POST:0.125 L,4-40 THRU,PLSTC,0.25 O	TK1465	ORDER BY DESCRIPTION
-32.2	131-0787-00			9	.TERMINAL,PIN:PCB/PRESSFIT,:MALE,STR,0.025	22526	47359-000
-33	337-2664-00			1	SHIELD,ELEC:CIRCUIT BOARD	TK1943	ORDER BY DESCRIPTION
-33.1	255-0581-00			AR	PLASTIC CHANNEL:0.156 X 0.156,POLYETHYLENE	TK1643	ORDER BY DESCRIPTION
-34	343-0088-00			2	CLAMP,CABLE:0.062 DIA,PLASTIC	80009	343-0088-00
-35	210-0586-00			1	NUT,PL,ASSEM WA:4-40 X 0.25,STL CD PL	OKB01	ORDER BY DESCRIPTION
-35.1	210-0269-00			1	TERMINAL,LUG:0.257 ID,PLAIN,BRS TINNED	OKB01	905-020
					(TO A5J1824)		
-36	211-0116-00			1	SCR,ASSEM WSHR:4-40 X 0.312,PNH,BRS,NP,POZ	OKB01	ORDER BY DESCRIPTION
-37	210-1178-00			1	WASHER,SHLDR:	13103	7721-7PPS
-38	342-0203-00			1	INSULATOR,PLATE:TRANSISTOR	18722	DF103C
-39	352-0163-01			1	HLDR,TERM CONN:5 WIRE,BROWN	80009	352-0163-01
					(TO A5J1712)		
-40	352-0200-03			1	HLDR,TERM CONN:4 WIRE,ORANGE	0JR05	352-0200-03
					(TO A5J1824)		
-41	----- -----			1	CIRCUIT BD ASSY:PS ISOLATION		
					(SEE A5A1 REPL)		
					(ATTACHING PARTS)		
-42	211-0292-00			4	SCR,ASSEM WSHR:4-40 X 0.29,PNH,BRS NI PL	01536	ORDER BY DESCRIPTION
-43	129-0404-00			4	SPACER,POST:0.853 L,W/4-40 TAP/STUD,BRS,CU	0J260	ORDER BY DESCRIPTION
					(END ATTACHING PARTS)		
					CKT BOARD ASSY INCLUDES:		
-43.1	136-0252-07			12	SOCKET,PIN TERM:SINGLE,PCB,T/G,0.030 H	22526	75060-012
-44	----- -----	B010100	B010209	1	CIRCUIT BD ASSY:TIME MARK		
	----- -----	B010210		1	CIRCUIT BD ASSY:TIME MARK		
					(SEE A4 REPL) (CG5010 ONLY)		
	----- -----	B010100	B010209	1	CIRCUIT BD ASSY:TIME MARK		
	----- -----	B010210		1	CIRCUIT BD ASSY:TIME MARK		
					(SEE A4 REPL) (CG5010 OPTION 01 ONLY)		
	----- -----	B010100	B010329	1	CIRCUIT BD ASSY:TIME MARK		
	----- -----	B010330	B011100	1	CIRCUIT BD ASSY:TIME MARK		
					(SEE A4 REPL) (CG5011 ONLY)		
	----- -----	B010100	B010329	1	CIRCUIT BD ASSY:TIME MARK		
	----- -----	B010330		1	CIRCUIT BD ASSY:TIME MARK		
					(SEE A4 REPL) (CG5011 ONLY)		
-47	346-0032-00			1	.STRAP,RETAINING:0.075 DIA X 4.0 L,MLD RBR	98159	2829-75-4
					(CG5010 & OPTION 01 ONLY)		
-48	344-0326-00			4	.CLIP,ELECTRICAL:FUSE,BRASS	75915	102071
-49	211-0558-00			1	.SCREW,MACHINE:6-32 X 0.25,BDGH,NYL	26365	ORDER BY DESCRIPTION
-50	131-0608-00			19	.TERMINAL,PIN:PRESSFIT/PCB,:MALE,STR,0.025	22526	48283-036
-51	174-2219-00			1	.CABLE ASSY,RF:50 OHM COAX,12.0 L,9-3/9-4	80009	174-2219-00
					(CG5010 & 01 ONLY)(FROM A4J1221 TO A4J1007)		
-52	174-2218-00			1	.CABLE ASSY,RF:50 OHM COAX,12.0 L,9-1/9-2	80009	174-2218-00
					(CG5010 & 01 ONLY)(FROM A4J1120 TO A3J1027)		
-53	211-0101-00			2	SCREW,MACHINE:4-40 X 0.25,FLH,100 DEG,STL	93907	ORDER BY DESCRIPTION
-54	200-2390-00			1	COVER,CKT BOARD:SLEW MODULE,LEFT	TK1943	ORDER BY DESCRIPTION
					(ATTACHING PARTS)		
-55	211-0030-00			5	SCREW,MACHINE:2-56 X 0.25,FLH,82 DEG,STL CD	93907	ORDER BY DESCRIPTION
-56	211-0250-00			2	SCREW,MACHINE:2-56 X 0.937,FLH,STL	OKB01	ORDER BY DESCRIPTION
					(END ATTACHING PARTS)		
-57	348-0642-00			2	PAD,CUSHIONING:1.5 X 1.8 X 0.125	71643	R-10480
-58	----- -----			1	CIRCUIT BD ASSY:OFFSET PLL		
					(SEE A3A1 REPL)		
					(ATTACHING PARTS)		
-59	211-0022-00			4	SCREW,MACHINE:2-56 X 0.188,PNH,STL	TK0435	ORDER BY DESCRIPTION
					(END ATTACHING PARTS)		

Fig. & Index No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Qty	12345 Part Name & Description	Mfr Code	Mfr Part Number
2 -60	----- -----			1	CIRCUIT BD ASSY:SLEW CONTROL		
					(SEE A3A2 REPL)		
					(ATTACHING PARTS)		
-61	211-0022-00			4	SCREW,MACHINE:2-56 X 0.188,PNH,STL	TK0435	ORDER BY DESCRIPTION
					(END ATTACHING PARTS)		
-62	----- -----			1	CIRCUIT BD ASSY:VCO,50MHZ		
					(SEE A3A3 REPL)		
					(ATTACHING PARTS)		
-63	211-0022-00			4	SCREW,MACHINE:2-56 X 0.188,PNH,STL	TK0435	ORDER BY DESCRIPTION
					(END ATTACHING PARTS)		
-64	----- -----			1	CIRCUIT BD ASSY:COUNTER		
					(SEE A3A4 REPL)		
					(ATTACHING PARTS)		
-65	211-0022-00			4	SCREW,MACHINE:2-56 X 0.188,PNH,STL	TK0435	ORDER BY DESCRIPTION
					(END ATTACHING PARTS)		
-66	----- -----			1	CIRCUIT BD ASSY:COUNTER		
					(SEE A3A5 REPL)		
					(ATTACHING PARTS)		
-67	211-0022-00			4	SCREW,MACHINE:2-56 X 0.188,PNH,STL	TK0435	ORDER BY DESCRIPTION
					(END ATTACHING PARTS)		
-68	337-3652-00			1	SHIELD,ELEC:LEFT,SLEW MODULE,CIRCUIT BD	TK1465	ORDER BY DESCRIPTION
					(ATTACHING PARTS)		
-69	211-0250-00			2	SCREW,MACHINE:2-56 X 0.937,FLH,STL	OKB01	ORDER BY DESCRIPTION
					(END ATTACHING PARTS)		
-70	200-2391-00			1	COVER,CKT BOARD:SLEW MODULE,RIGHT	TK1943	ORDER BY DESCRIPTION
					(ATTACHING PARTS)		
-71	211-0030-00			6	SCREW,MACHINE:2-56 X 0.25,FLH,82 DEG,STL CD	93907	ORDER BY DESCRIPTION
					(END ATTACHING PARTS)		
-72	348-0641-00			3	PAD,CUSHIONING:2.7 L X 1.8 W X 0.125 THK	71643	R-10480
-73	----- -----			1	CIRCUIT BD ASSY:STEERING		
					(SEE A3A6 REPL)		
					(ATTACHING PARTS)		
-74	211-0022-00			5	SCREW,MACHINE:2-56 X 0.188,PNH,STL	TK0435	ORDER BY DESCRIPTION
					CKT BOARD ASSY INCLUDES:		
-75	211-0008-00			2	.SCREW,MACHINE:4-40 X 0.25,PNH,STL	93907	ORDER BY DESCRIPTION
-76	220-0829-00			2	.NUT,PRESSMOUNT:4-40 X 0.216 OD,STL CD PL	46384	KF2-440
-77	210-0054-00			2	.WASHER,LOCK:#4 SPLIT,0.025 THK STL	86928	ORDER BY DESCRIPTION
-77.1	136-0728-00			1	.SOCKET,DIP:PCB,;FEMALE,STR,2 X 7,14 POS,0.	09922	DILB14P-108
-77.2	136-0729-00			3	.SOCKET,DIP:PCB,;FEMALE,STR,2 X 8,16 POS,0.	09922	DILB16P-108T
-78	----- -----			1	CIRCUIT BD ASSY:VCO,100MHZ		
					(SEE A3A7 REPL)		
					(ATTACHING PARTS)		
-79	211-0022-00			4	SCREW,MACHINE:2-56 X 0.188,PNH,STL	TK0435	ORDER BY DESCRIPTION
					(END ATTACHING PARTS)		
-80	----- -----			1	CIRCUIT BD ASSY:MAIN PLL		
					(SEE A3A8 REPL)		
					(ATTACHING PARTS)		
					CKT BOARD ASSY INCLUDES:		
-81	211-0022-00			4	SCREW,MACHINE:2-56 X 0.188,PNH,STL	TK0435	ORDER BY DESCRIPTION
					(END ATTACHING PARTS)		
-82	136-0153-00			1	.SKT,PL-IN ELEK:CRYSTAL,2 CONT W/CLAMP	91506	8000AG6
					(ATTACHING PARTS)		
-83	210-0632-00			2	.EYELET,METALLIC:0.089 OD X 0.125 L,BRSGOLD	80009	210-0632-00
					(END ATTACHING PARTS)		
-84	337-3651-00			1	SHIELD,ELEC:RIGHT,SLEW MODULE,CIRCUIT BD	TK1465	ORDER BY DESCRIPTION
-85	----- -----			1	CIRCUIT BD ASSY:TIME INTERFACE		
					(SEE A3 REPL) (CG5010 & OPTION 01 ONLY)		
	----- -----			1	CIRCUIT BD ASSY:TIME INTERFACE		
					(SEE A3 REPL) (CG5011 ONLY)		
					(ATTACHING PARTS)		
-86	211-0001-00			2	SCREW,MACHINE:2-56 X 0.25,PNH,STL	93907	ORDER BY DESCRIPTION
					(END ATTACHING PARTS)		

Fig. & Index No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Qty	12345 Part Name & Description	Mfr Code	Mfr Part Number
3 -1	337-3607-00			1	SHIELD,ELEC:CIRCUIT BOARD	0J9P9	ORDER BY DESCRIPTION
					(ATTACHING PARTS)		
-2	211-0105-00			1	SCREW,MACHINE:4-40 X 0.188,FLH,100 DEG,STL	TK0435	ORDER BY DESCRIPTION
-3	----- -----	B010100	B010151	1	CIRCUIT BD ASSY:ADVANCED TIMING		
	----- -----	B010152	B010164	1	CIRCUIT BD ASSY:ADVANCED TIMING,		
	----- -----	B010165	B010668	1	CIRCUIT BD ASSY:ADVANCED TIMING		
	----- -----	B010669		1	CIRCUIT BD ASSY:ADVANCED TIMING		
					(SEE A3A9 REPL) (CG5011 ONLY)		
					(ATTACHING PARTS)		
-4	129-1343-00			6	SPACER,POST:4-40 X 0.420 L,AL,0.250,HEX	0KB01	ORDER BY DESCRIPTION
					(END ATTACHING PARTS)		
-5	----- -----			1	CIRCUIT BD ASSY:TIME INTERFACE		
					(SEE A3 REPL) (CG5010 & OPTION 01 ONLY)		
	----- -----			1	CIRCUIT BD ASSY:TIME INTERFACE		
					(SEE A3 REPL) (CG5011 ONLY)		
					(ATTACHING PARTS)		
-6	211-0022-00			10	SCREW,MACHINE:2-56 X 0.188,PNH,STL	TK0435	ORDER BY DESCRIPTION
					(END ATTACHING PARTS)		
-7	361-1552-00			6	SPACER,SLEEVE:0.15 L X 0.25 OD X 0.125 ID	0KB01	ORDER BY DESCRIPTION
-8	337-3651-00			1	SHIELD,ELEC:RIGHT,SLEW MODULE,CIRCUIT BD	TK1465	ORDER BY DESCRIPTION
-9	200-2391-00			1	COVER,CKT BOARD:SLEW MODULE,RIGHT	TK1943	ORDER BY DESCRIPTION
					(ATTACHING PARTS)		
-10	211-0030-00			6	SCREW,MACHINE:2-56 X 0.25,FLH,82 DEG,STL CD	93907	ORDER BY DESCRIPTION
					(END ATTACHING PARTS)		
-11	348-0642-00			1	PAD,CUSHIONING:1.5 X 1.8 X 0.125	71643	R-10480
-12	----- -----			1	CIRCUIT BD ASSY:STEERING		
					(SEE A3A6 REPL)		
					(ATTACHING PARTS)		
-13	211-0022-00			5	SCREW,MACHINE:2-56 X 0.188,PNH,STL	TK0435	ORDER BY DESCRIPTION
					(END ATTACHING PARTS)		
					CKT BOARD ASSY INCLUDES:		
-14	211-0008-00			2	.SCREW,MACHINE:4-40 X 0.25,PNH,STL	93907	ORDER BY DESCRIPTION
-15	220-0829-00			2	.NUT,PRESSMOUNT:4-40 X 0.216 OD,STL CD PL	46384	KF2-440
-16	210-0054-00			2	.WASHER,LOCK:#4 SPLIT,0.025 THK STL	86928	ORDER BY DESCRIPTION
-16.1	136-0728-00			1	.SOCKET,DIP:PCB,;FEMALE,STR,2 X 7,14 POS,0.1	09922	DILB14P-108
-16.2	136-0729-00			3	.SOCKET,DIP:PCB,;FEMALE,STR,2 X 8,16 POS,0.1	09922	DILB16P-108T
-17	----- -----			1	CIRCUIT BD ASSY:VCO,100MHZ		
					(SEE A3A7 REPL)		
					(ATTACHING PARTS)		
-18	211-0022-00			4	SCREW,MACHINE:2-56 X 0.188,PNH,STL	TK0435	ORDER BY DESCRIPTION
					(END ATTACHING PARTS)		
-19	----- -----			1	CIRCUIT BD ASSY:MAIN PLL		
					(SEE A3A8 REPL)		
					(ATTACHING PARTS)		
-20	211-0022-00			4	SCREW,MACHINE:2-56 X 0.188,PNH,STL	TK0435	ORDER BY DESCRIPTION
					(END ATTACHING PARTS)		
					CKT BOARD ASSY INCLUDES:		
-21	136-0153-00			1	.SKT,PL-IN ELEK:CRYSTAL,2 CONT W/CLAMP	91506	8000AG6
					(ATTACHING PARTS)		
-22	210-0632-00			2	.EYELET,METALLIC:0.089 OD X 0.125 L,BRSGOLD	80009	210-0632-00
					(END ATTACHING PARTS)		

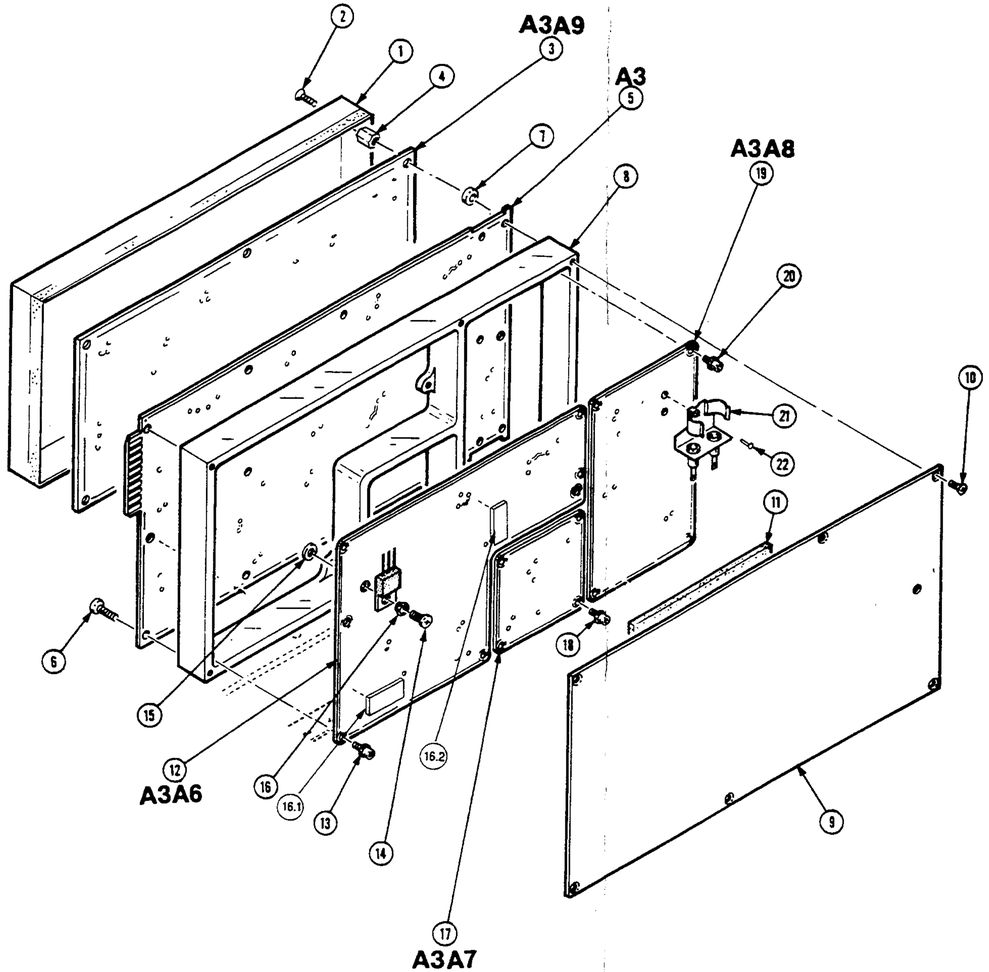


FIGURE 3 CIRCUIT BOARDS

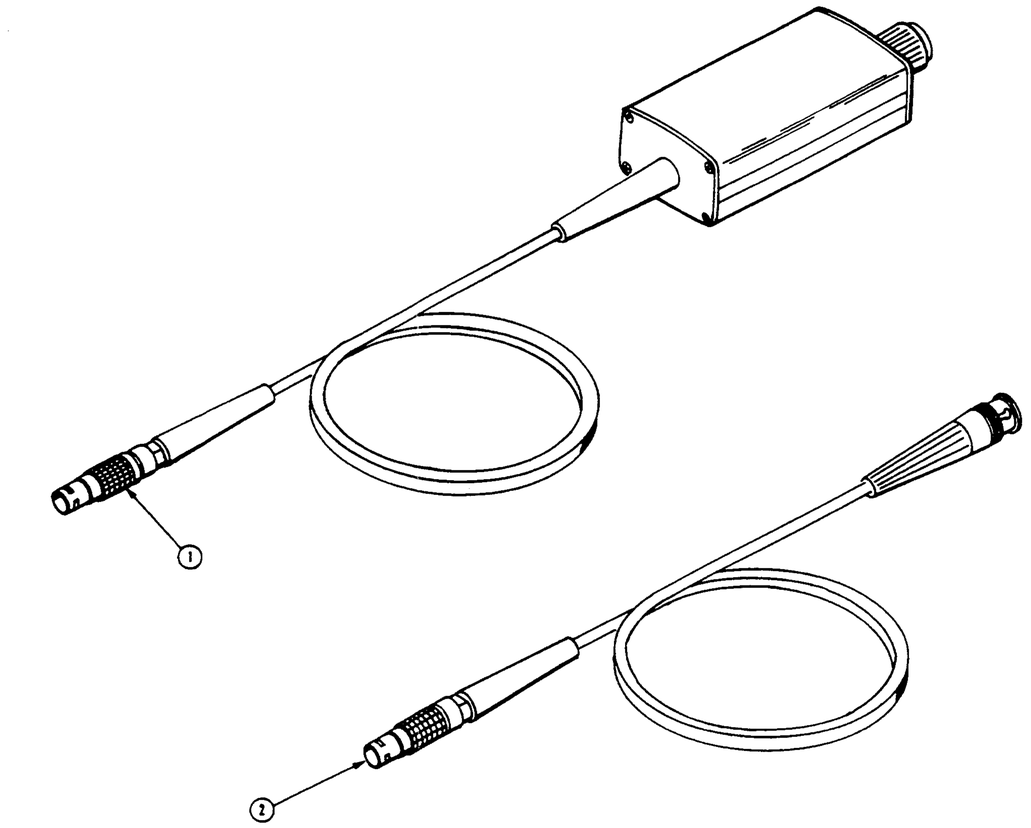


FIGURE 4 ACCESSORIES

Fig. & Index No.	Tektronix Part Number	Serial Number Effect	Serial Number Discont	Qty	12345 Part Name & Description	Mfr Code	Mfr Part Number
					STANDARD ACCESSORIES		
4 -1	015-0611-00			1	ACCESSORY ASSY:PLUSE HEAD CG5010/CG5011	80009	015-0611-00
-2	012-0884-00			1	CABLE,INTCON:1 METER	80009	012-0884-00
	070-7745-02			1	MANUAL,TECH:PROGRAMMABLE CALIBRATION	80009	070-7745-01
	070-7746-03			1	MANUAL,TECH:SERVICE,VOL II,CG5010/CG5011	80009	070-7746-02
	070-7748-00			1	MANUAL,TECH:REFERENCE CARD	80009	070-7748-00
	070-7893-00			1	MANUAL,TECH:INSTRUCTION,015-0611-00	80009	070-7893-00
					OPTIONAL ACCESSORIES		
	015-0309-01			1	ACCESSORY ASSY:REMOTE VARIABLE	80009	015-0309-01
	015-0310-01			1	ACCESSORY ASSY:COMPARATOR	80009	015-0310-01
	070-2819-00			1	MANUAL,TECH:INSTR	80009	070-2819-00
	070-2817-01			1	MANUAL,TECH:COMPARATOR 015-0310-01	80009	070-2817-01

Tektronix®

REVISION INFORMATION

Manual Part No. 070-7746-03 **First Printing** July 1992

Product: CG 5010 & CG 5011 Programmable Calibration Generators **Revised** February 1993

Manual Insert Status

DATE	CHANGE REFERENCE	STATUS
AUG 91	C1/891	Effective

Tektronix®
COMMITTED TO EXCELLENCE

MANUAL CHANGE INFORMATION

Date: August 21, 1991 **Change Reference:** C1/891

Product: CG 5010/ CG 5011 **Manual Part No.:** 070-7746-03

DESCRIPTION **Product Group 42**

The following change information applies to:

CG 5010 serial number B010210–up
CG 5011 serial number B010330–up

CG 5010/CG 5011 Front Panel Status Message Change

All references to the "UNCAL" front panel status message should now refer to the "OVLD" front panel status message. This message indicates an amplifier overload due to an improper termination such as a short.